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JVC LT-19D200 SERVICE MANUAL

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JVC

SERVICE MANUAL

LCD TELEVISION BUILT-IN DVD PLAYER

LT-19D200/AK

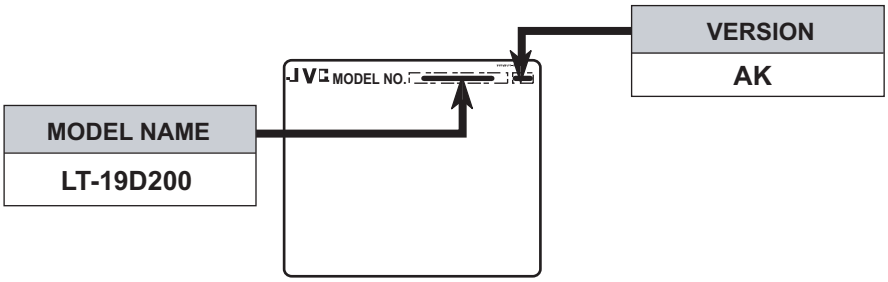
HDTV HIGH DEFINITION TELEVISION

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

DOLBY DIGITAL

ENERGY STAR

There may be multiple versions of this TV model.
The TV version is identified by the letters next to the model number on the TV's Rating.
(See illustration).
Use the service manual that matches the version of the TV.



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No.YA711<Rev.002>
2009/8

SPECIFICATION

Items		Contents
Dimensions (W × H × D)		47.75 cm × 36.58 cm × 21.0 cm (18.8" × 14.5" × 8.3") [with stand] 47.75 cm × 33.04 cm × 13.47 cm (18.8" × 13.1" × 5.4") [without stand]
Mass		4.5 kg (10.0 lbs) [with stand] 4.1 kg (9.1 lbs) [without stand]
Power Input		AC120 V , 60 Hz
Power Consumption		65 W (Max)
TV RF System (Analog / Digital)	Analog Digital	CCIR (M) ATSC terrestrial / Digital cable
Color System (Analog)		NTSC
Stereo System (Analog)		BTSC (Multi Channel Sound)
Teletext System (Analog)		Closed caption (T1-T4 / CC1-CC4)
TV Receiving Channels and Frequency (Analog)	VHF Low VHF High UHF CATV	02 ch - 06 ch : 54 MHz - 88 MHz 07 ch - 13 ch : 174 MHz - 216 MHz 14 ch - 69 ch : 470 MHz - 806 MHz 54 MHz - 804 MHz Low Band : 02 - 06 High Band : 07 - 13 Mid Band : 14 - 22 Super Band : 23 - 36 Hyper Band : 37 - 64 Ultra Band : 65 - 94, 100 - 135 Sub Mid Band : 01, 96 - 99
TV / CATV Total Channel		191 Channels
Intermediate Frequency (Analog)	Video IF Sound IF	45.75 MHz 41.25 MHz (4.5 MHz)
Color Sub Carrier Frequency (Analog)		3.58 MHz
LCD Panel		19" class (18.5" Diagonal) wide aspect (16 : 9)
Display Pixels		Horizontal : 1366 dots × Vertical : 768 dots (W-XGA)
Audio Power Output		1 W + 1 W
Speaker		Oval type × 2
Discs (Playback compatibility)		DVD video, DVD-RW/-R, DVD+RW/+R, audio CD, video CD, CD-RW/-R
Frequency response	DVD (linear sound)	20 Hz to 20 kHz (sample rate: 48 kHz), 20 Hz to 44 kHz (sample rate: 96 kHz)
	CD	20 Hz to 20 kHz
Signal-to-noise ratio (S/N ratio)		CD: 90 dB (JEITA)
Total distortion factor	DVD	1 KHz 0.007% (JEITA)
	CD	1 KHz 0.007% (JEITA)
Antenna Terminal (VHF/UHF, ATSC / DIGITAL CABLE IN)		F-type connector, 75Ω unbalanced, coaxial × 1
Video / Audio Input [VIDEO]	S-Video	Mini-DIN 4 pin × 1 Y: 1 V (p-p), Positive (Negative sync.), 75 Ω C: 0.286V (p-p) (Burst signal), 75 Ω
	Video	1 V (p-p), Positive (Negative sync.), 75 Ω, RCA pin jack × 1
	Audio	500 mV (rms), High impedance, RCA pin jack × 2
Video / Audio Input [COMPONENT]	Component Video 1080i / 720p 480p / 480i	RCA pin jack × 3 Y : 1 V (p-p) (Sync signal: 0.35V(p-p), 3-value sync.), 75 Ω Pb/Pr : ±0.35V(p-p), 75 Ω Y : 1 V (p-p), Positive (Negative sync.), 75 Ω Cb/Cr : 0.7V(p-p), 75 Ω
	Audio	500 mV (rms), High impedance, RCA pin jack × 2
Digital Input	Digital(Video/Audio)	HDMI 2-row 19pin connector × 1 (Digital-input terminal is not compatible with picture signals of personal computer) Video: Supported format: 1080i / 720p / 480p / 480i Audio: 2ch L-PCM, 32 / 44.1 / 48 KHz, 16 / 20 / 24 bit
	Analog (Audio)	500mV(rms) (-4dBs), high impedance, RCA pin jack × 2
PC (RGB) Input	Video	D-sub 15 pin × 1 R/G/B : 0.7 V (p-p), 75Ω HD / VD : 1 V (p-p) to 5 V (p-p), high impedance
	Audio	3.5 mm stereo mini jack × 1
Digital Audio output		500 mV (rms), Coaxial × 1
Remote Control Unit		RM-C2152 (AA/R6 battery × 2)

Design & specifications are subject to change without notice.

SECTION 1
PRECAUTION

1.1 SAFETY PRECAUTIONS

(1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual**. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

(4) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED (NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.

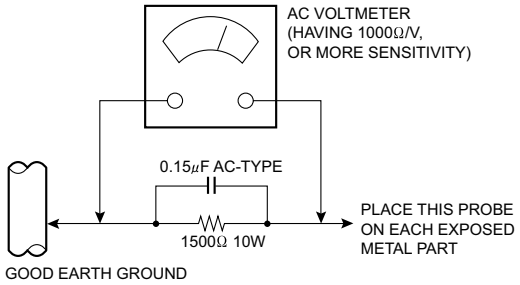
(5) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(6) **Isolation Check (Safety for Electrical Shock Hazard)**
After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second. (. . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

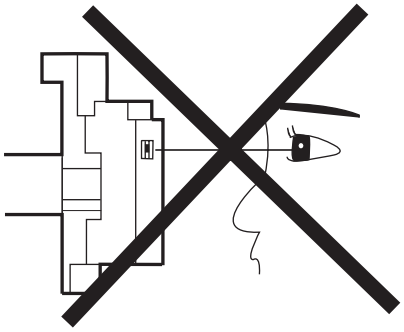
b) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000Ω per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



1.2 LASER BEAM SAFETY PRECAUTIONS

This DVD player uses a pickup that emits a laser beam.

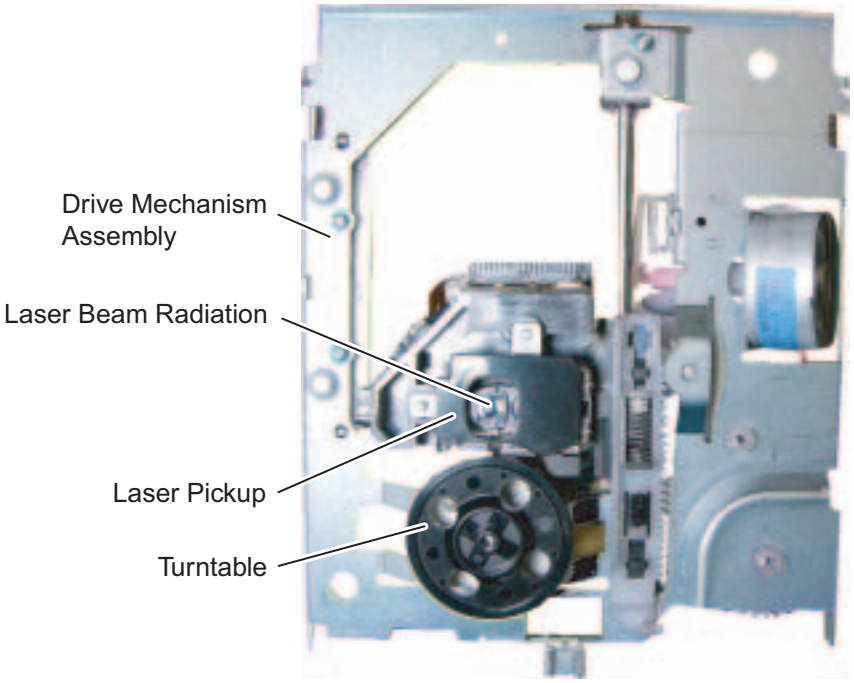


Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 30 cm away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.

CAUTION:

Use of controls and adjustments, or doing procedures other than those specified herein, may result in hazardous radiation exposure.



CAUTION:VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED. DO NOT STARE INTO BEAM.
ATTENTION:RAYONNEMENT LASER DANGEREUX SI OUVERT AVEC L'ENCLENCHEMENT DE SECURITE ANNULE.

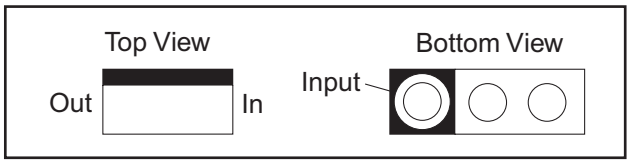
Location: Top of LCD module.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

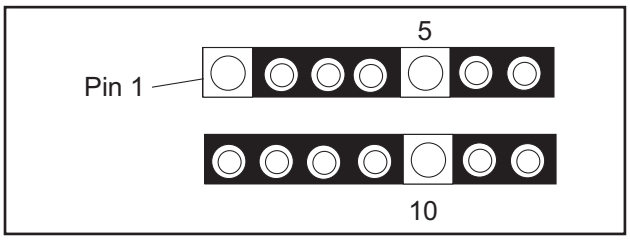
2.1 STANDARD NOTES FOR SERVICING

2.1.1 CIRCUIT BOARD INDICATIONS

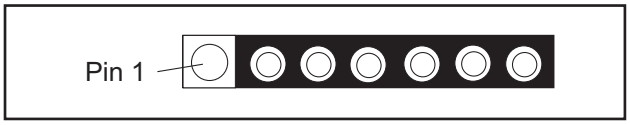
(1) The output pin of the 3 pin Regulator ICs is indicated as shown.



(2) For other ICs, pin 1 and every fifth pin are indicated as shown.



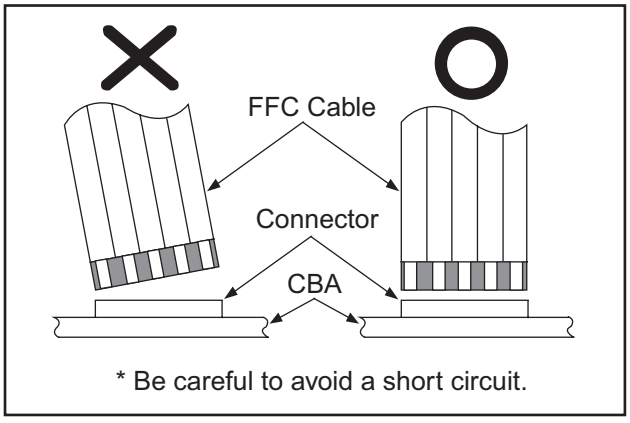
(3) The 1st pin of every male connector is indicated as shown.



2.1.2 INSTRUCTIONS FOR CONNECTORS

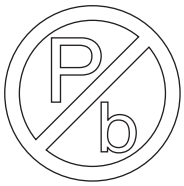
(1) When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.

(2) FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.



2.1.3 PB (LEAD) FREE SOLDER

Pb free mark will be found on PCBs which use Pb free solder. (Refer to figure.) For PCBs with Pb free mark, be sure to use Pb free solder. For PCBs without Pb free mark, use standard solder.



Pb free mark

2.1.4 HOW TO REMOVE / INSTALL FLAT PACK-IC

2.1.4.1 REMOVAL

WITH HOT-AIR FLAT PACK-IC DESOLDERING MACHINE:

(1) Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig.2-1)

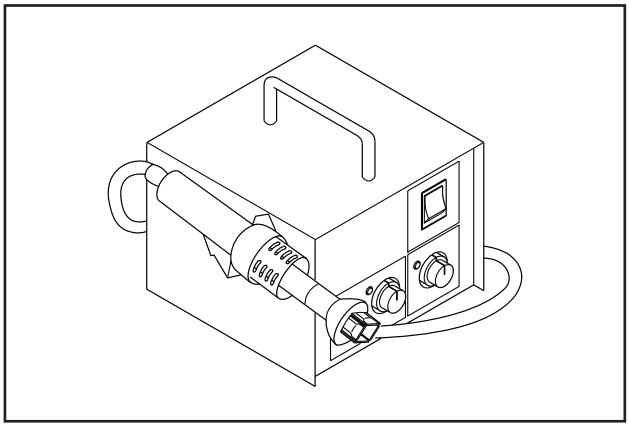


Fig.2-1

(2) Remove the flat pack-IC with tweezers while applying the hot air.

(3) Bottom of the flat pack-IC is fixed with glue to the PWB; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig.2-6)

(4) Release the flat pack-IC from the PWB using tweezers. (Fig.2-6)

CAUTION:

(1) The Flat Pack-IC shape may differ by models. Use an appropriate hot-air flat pack-IC desoldering machine, whose shape matches that of the Flat Pack-IC.

(2) Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig.2-2)

(3) The flat pack-IC on the PWB is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

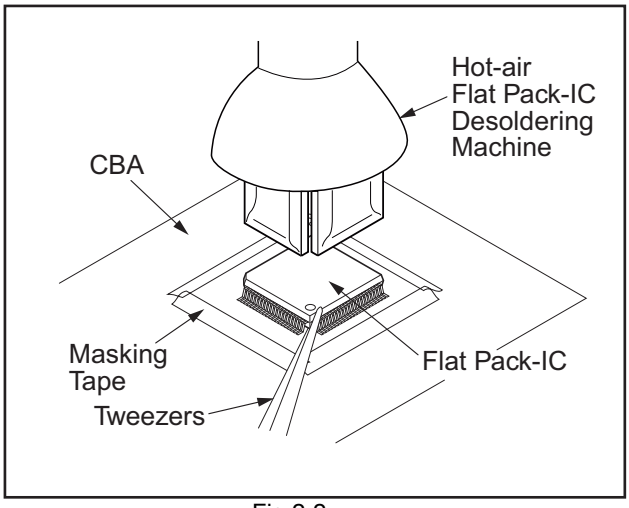


Fig.2-2

WITH SOLDERING IRON:

(1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig.2-3)

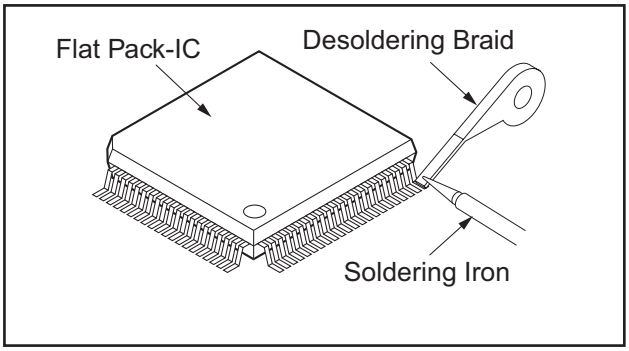


Fig.2-3

(2) Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig.2-4)

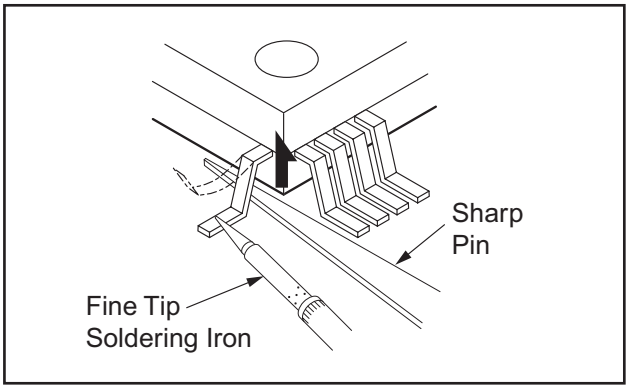


Fig.2-4

(3) Bottom of the flat pack-IC is fixed with glue to the PWB; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig.2-6)

(4) Release the flat pack-IC from the PWB using tweezers. (Fig.2-6)

WITH IRON WIRE:

(1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig.2-3)

(2) Affix the wire to a workbench or solid mounting point, as shown in Fig.2-5.

(3) While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the PWB contact pads as shown in Fig.2-5.

(4) Bottom of the flat pack-IC is fixed with glue to the PWB; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig.2-6)

(5) Release the flat pack-IC from the PWB using tweezers. (Fig.2-6)

NOTE:

When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the PWB, handle it gently because it may be damaged if force is applied.

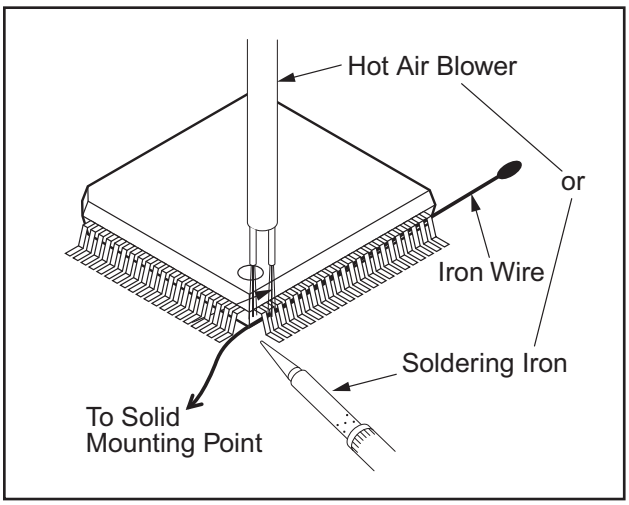


Fig.2-5

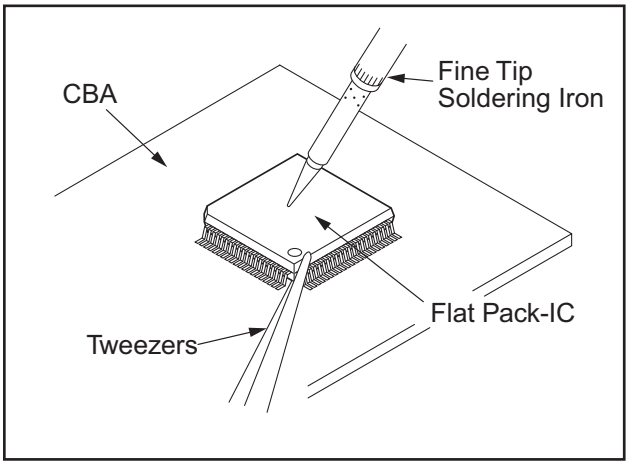


Fig.2-6

2.1.4.2 INSTALLATION

(1) Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the PWB so you can install a replacement flat pack-IC more easily.
(2) The ● mark on the flat pack-IC indicates pin 1. (See Fig.2-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig.2-8.)
(3) Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

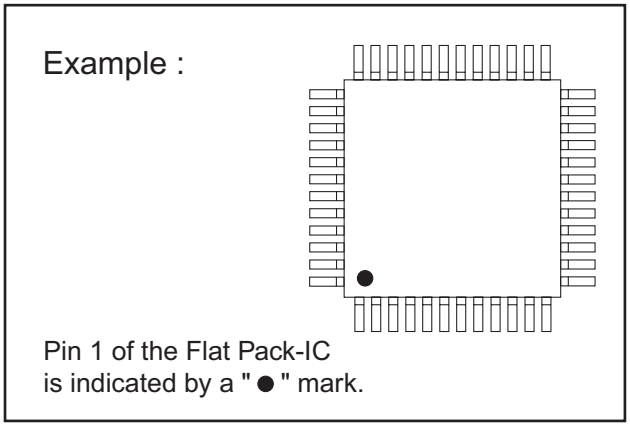


Fig.2-7

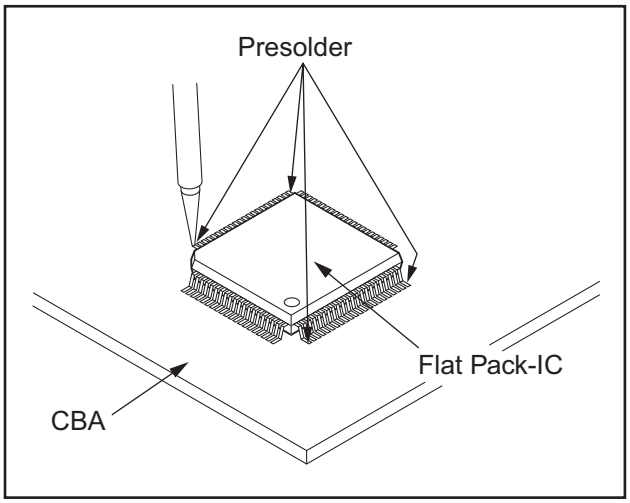


Fig.2-8

2.1.5 INSTRUCTIONS FOR HANDLING SEMI-CONDUCTORS

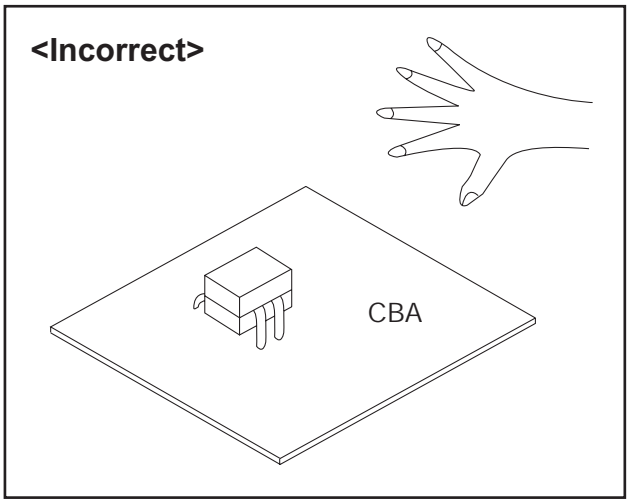
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

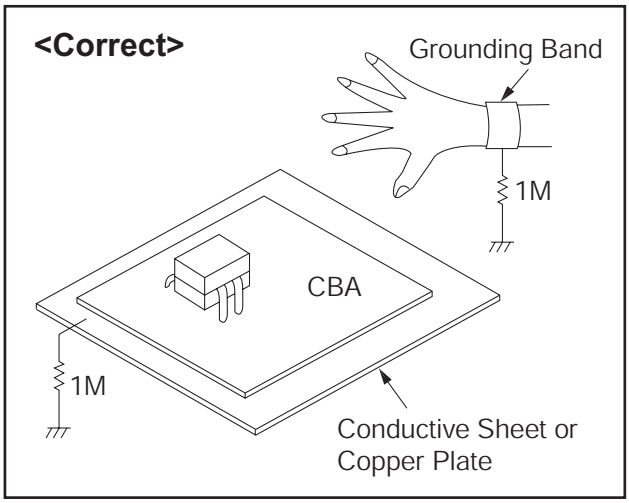
2.1.5.1 Ground for Human Body

Be sure to wear a grounding band (1MΩ) that is properly grounded to remove any static electricity that may be charged on the body.

2.1.5.2 Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing.

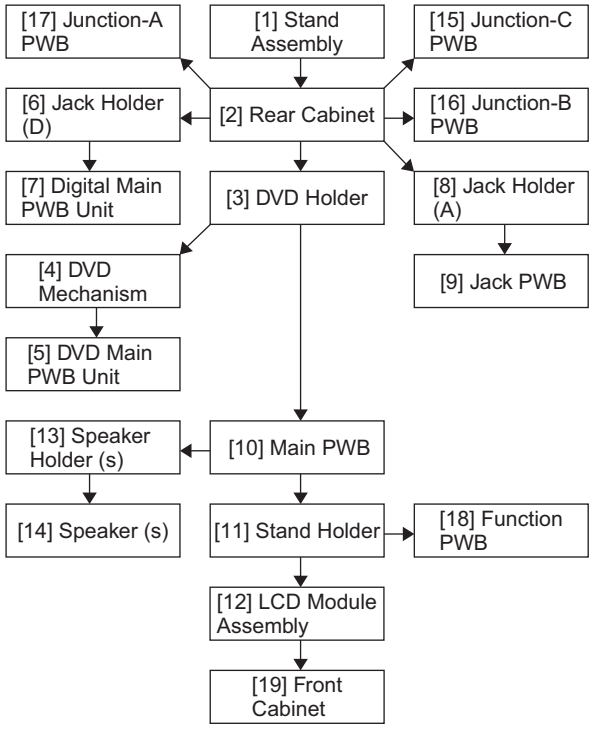




SECTION 3
DISASSEMBLY

3.1 DISASSEMBLY FLOWCHART

This flowchart indicates the disassembly steps for the cabinet parts, and the PWB in order to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route and dress the cables as they were.



3.2 DISASSEMBLY METHOD

Step/ Loc. No.	Part	Removal		
		Fig. No.	Remove/*Unhook/ Unlock/Release/ Unplug/Unclamp/ Desolder	Note
[1]	Stand Assembly	D1	3(S-1)	---
[2]	Rear Cabinet	D1	10(S-2), 2(S-3), (S-4)	---
[3]	DVD Holder	D2 D5	4(S-5), 3(S-6), *CN901, *CN902	---
[4]	DVD Mechanism	D2 D5	(S-7), *CN201, *CN301, *CN801	1 2 3 4 5 6
[5]	DVD Main PWB Unit	D2	----------	---
[6]	Jack Holder(D)	D3	(S-8)	---
[7]	Digital Main PWB Unit	D3 D5	4(S-9), (S-10), 4(S-11), 2(H-1), *CN301, *CN302, *CN303, *CN3902, Shield Box	---
[8]	Jack Holder(A)	D3	(S-12)	---
[9]	Jack PWB	D3 D5	4(S-13), CN702, *CN861A	---
[10]	Main PWB	D3 D5	7(S-14), *CN102, *CN201, *CN862A, *CN1001, *CN1002	---
[11]	Stand Holder	D4	2(S-15), (S-16)	---
[12]	LCD Module Assembly	D4	----------	---
[13]	Speaker Holder(s)	D4	4(S-17)	---
[14]	Speaker(s)	D4	----------	---
[15]	Junction-C PWB	D4 D5	Desolder	---
[16]	Junction-B PWB	D4 D5	Desolder	---
[17]	Junction-A PWB	D4 D5	Desolder	---
[18]	Function PWB	D4 D5	2(S-18)	---
[19]	Front Cabinet	D4	----------	---

(1) (2) (3) (4) (5)

NOTE;

(1) Order of steps in procedure. When reassembling, follow the steps in reverse order. These numbers are also used as the Identification (location) No. of parts in figures.
(2) Parts to be removed or installed.
(3) Fig. No. showing procedure of part location
(4) Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered. P = Spring, L = Locking Tab, S = Screw, H = Hex Screw, CN = Connector * = Unhook, Unlock, Release, Unplug, or Desolder e.g. 2(S-2) = two Screws (S-2), 2(L-2) = two Locking Tabs (L-2)
(5) Refer to the following "Reference Notes in the Table."

REFERENCE NOTES

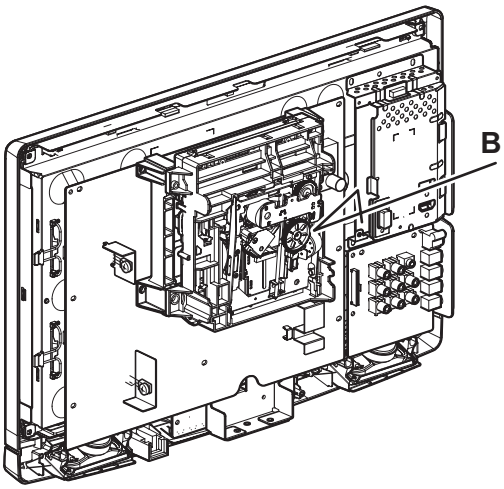
(1) **CAUTION 1**: Electrostatic breakdown of the laser diode in the optical system block may occur as a potential difference caused by electrostatic charge accumulated on cloth, human body etc., during unpacking or repair work. To avoid damage of pickup follow next procedures.
   a) Short the three short lands of FPC cable with solder before removing the FFC cable (CN201) from it. If you disconnect the FFC cable (CN201), the laser diode of pickup will be destroyed. (Fig. D2)
   b) Disconnect the Connectors (CN301), and (CN801). Remove Screw (S-7) and remove the DVD Main PWB Unit. (Fig. D2)

(2) **Reassembly Notes of New DVD Mechanism:**
   a) To remove the Chassis Cover, remove two screws A as shown in Fig. D2.
   b) To avoid damage of the pickup unit (laser diode), confirm that the three short lands (either of two places) are shorted out by soldering between them as shown in View A in Fig. D2.
   c) Connect the FFC cables of the new DVD Mechanism to the three connectors (CN201, CN301, CN801) on the DVD Main PWB Unit.
   d) After confirming that the FFC cables are securely connected to the three connectors, remove the solder from the three short lands. If the solder is not removed, the laser diode will not light and it will not be possible to read discs.
   e) Insert the pin A on the Chassis Cover into the hole A on the Main Chassis as shown in Fig. D2. Then tighten two screws A to install the Chassis Cover.

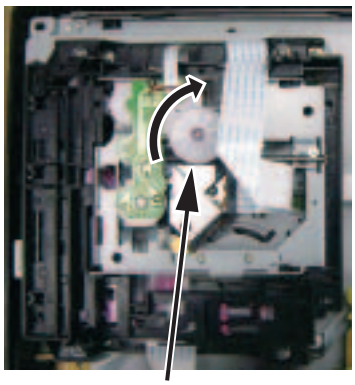
(3) **CAUTION 2**: When reassembling, confirm the FFC cable (CN201) is connected completely. Then remove the solder from the three short lands of FPC cable. (Fig. D2)

(4) **How to eject a disc in emergency**
Press and hold [EJECT] on the unit for more than 5 seconds.

(5) **How to eject manually 1**
   a) Remove the Rear Cabinet.
   b) Rotate the gear in the direction of the arrow as shown below.



View for B



The gear is turned to the direction of the arrow.

(6) How to eject manually 2
   a) Remove the Rear Cabinet.
   b) To remove the DVD Main PWB Unit, remove a screw (S-7) in Fig. D2. Do not disconnect connectors.
   c) To remove the Chassis Cover, remove two screws A as shown in Fig. D2.
   d) Remove a disc.

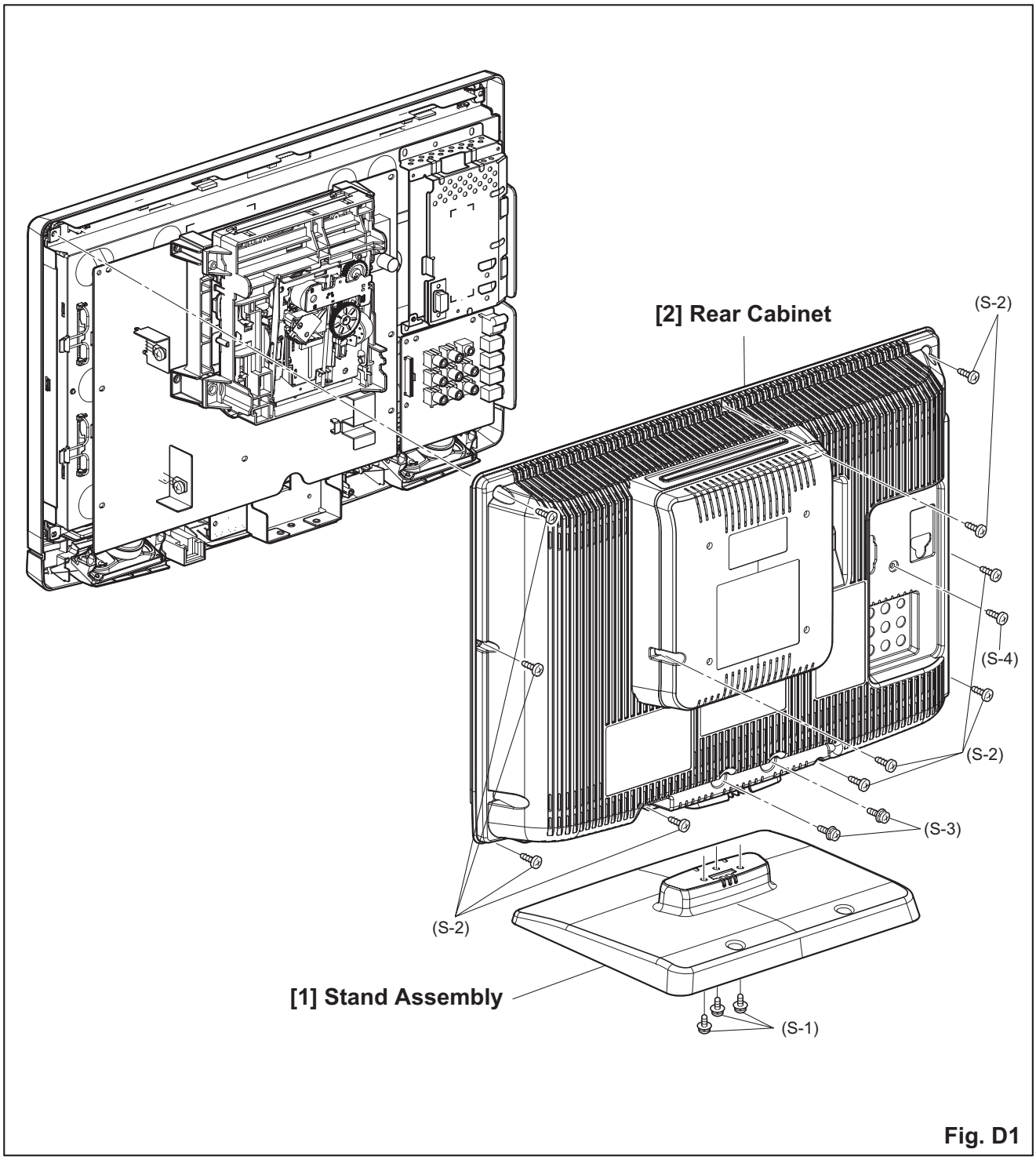
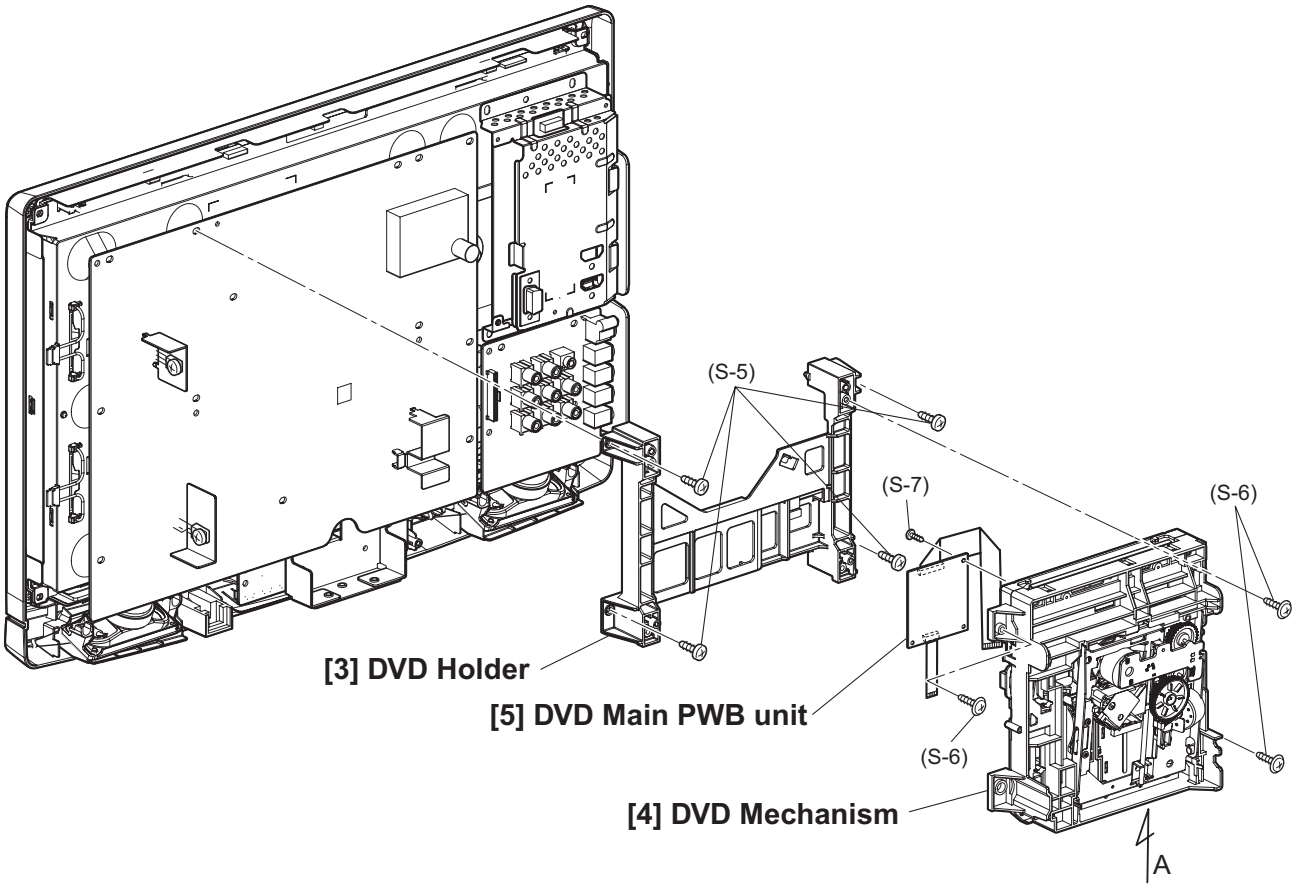
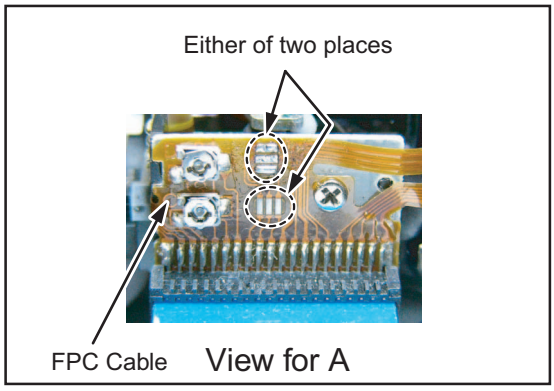


Fig. D1



Remove two screws A, then short the three short lands by soldering as shown in View for A.



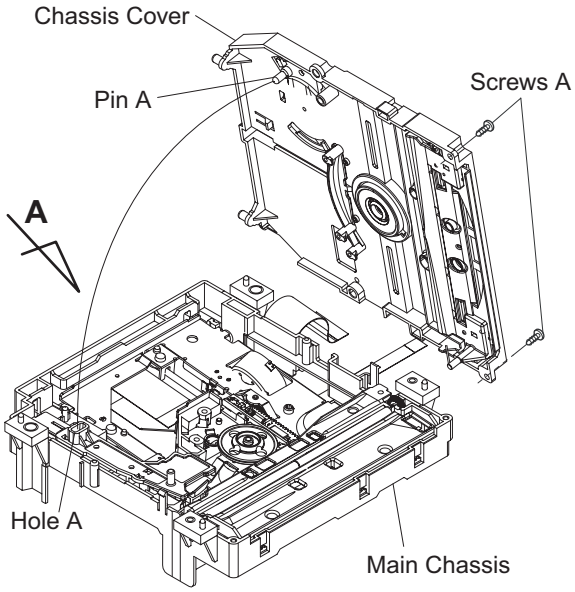


Fig. D2

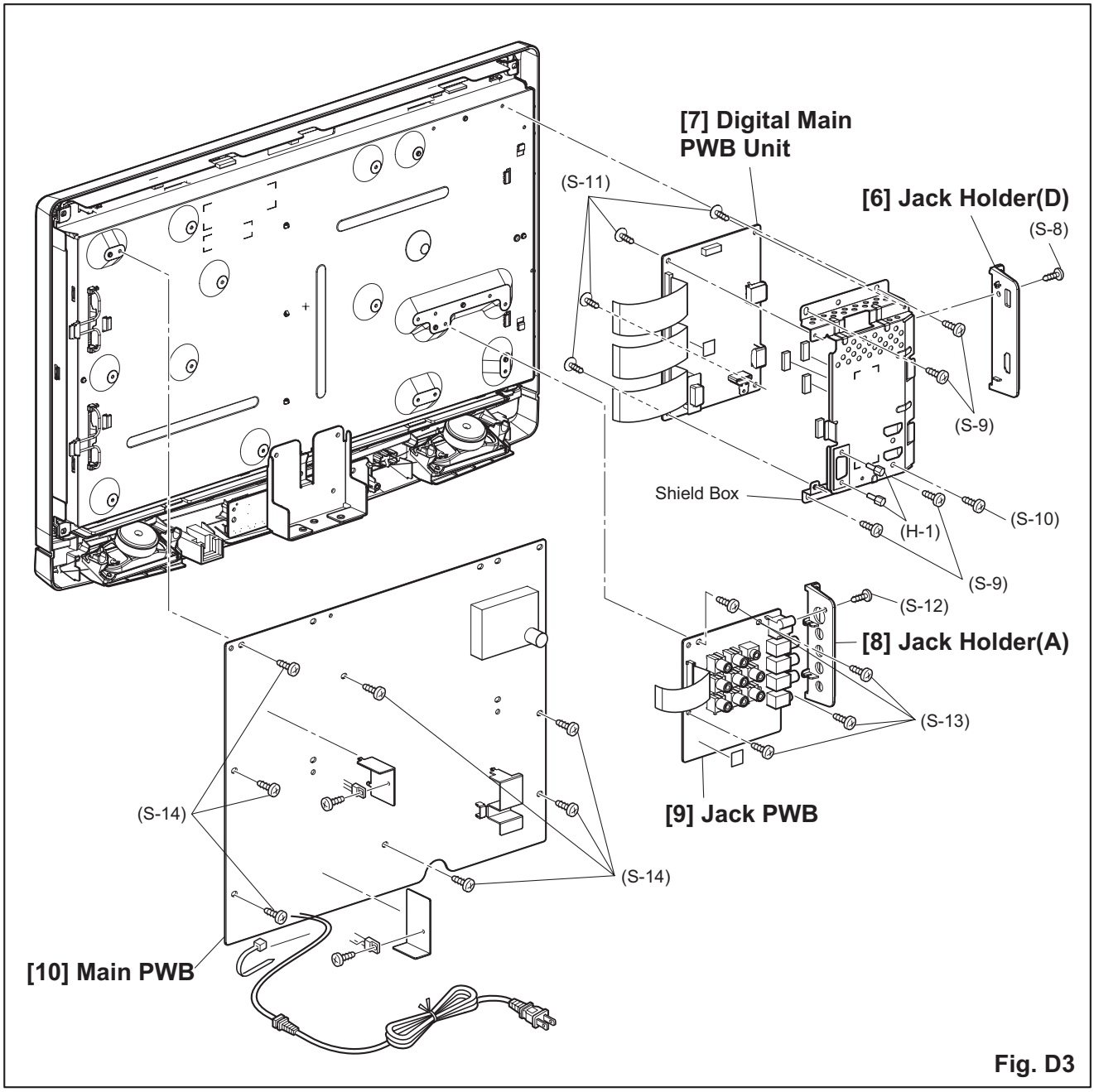

[7] Digital Main PWB Unit
(S-11)
[6] Jack Holder(D)
(S-8)
(S-9)
Shield Box
(S-10)
(H-1)
(S-9)
(S-12)
[8] Jack Holder(A)
(S-13)
[9] Jack PWB
(S-14)
(S-14)
[10] Main PWB

Fig. D3

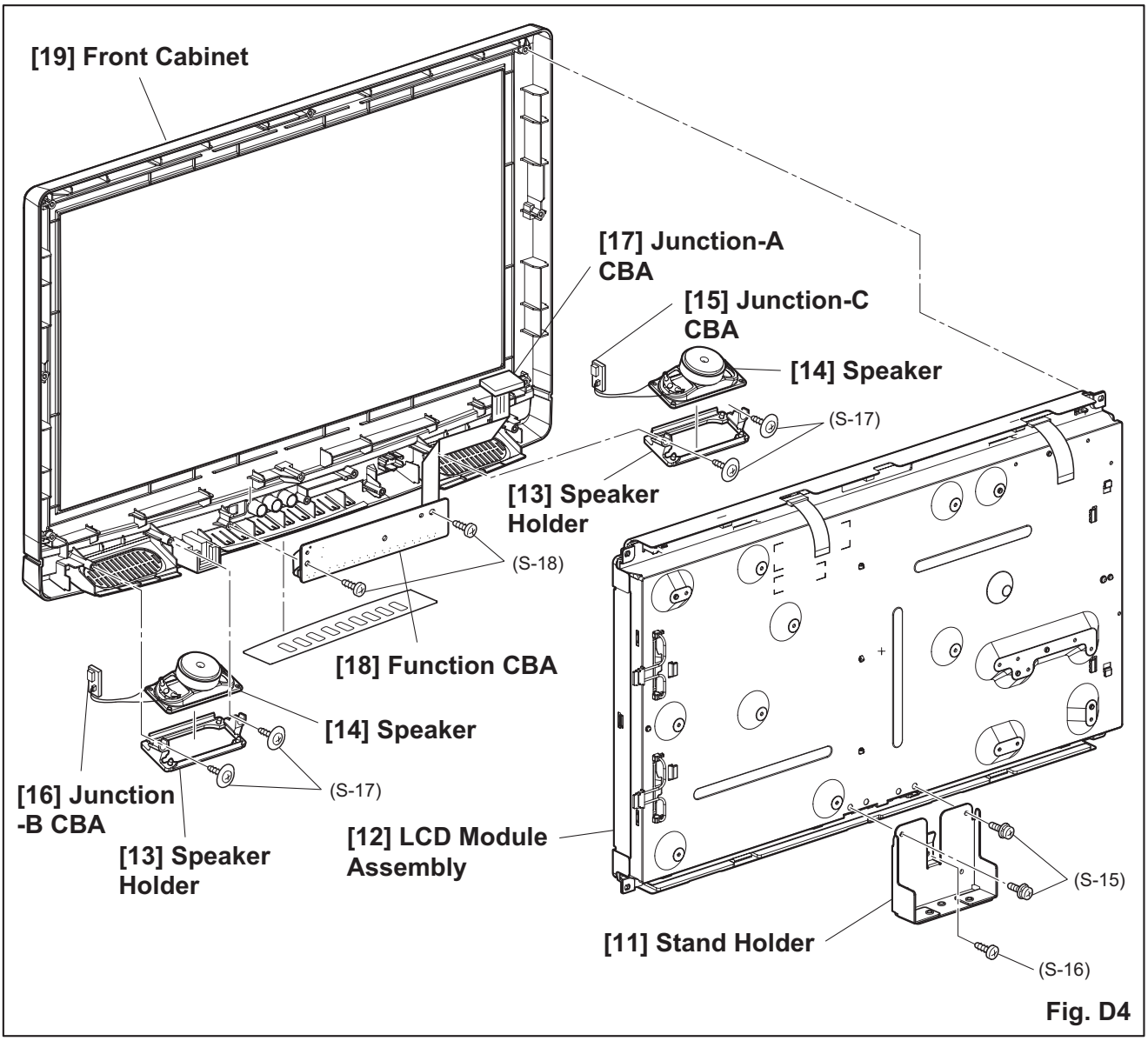

[19] Front Cabinet
[17] Junction-A CBA
[15] Junction-C CBA
[14] Speaker
(S-17)
[13] Speaker Holder
(S-18)
[18] Function CBA
[14] Speaker
(S-17)
[16] Junction -B CBA
[13] Speaker Holder
[12] LCD Module Assembly
(S-15)
[11] Stand Holder
(S-16)

Fig. D4

SECTION 4
ADJUSTMENT

4.1 GENERAL NOTE: "PWB" IS ABBREVIATION FOR "CIRCUIT BOARD ASSEMBLY."

NOTE:

Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.

4.2 TEST EQUIPMENT REQUIRED

(1) NTSC Pattern Generator (Color Bar W/White Window, Red Color, Dot Pattern, Gray Scale, Monoscope, Multi-Burst)
(2) Remote control unit
(3) Color Analyzer

4.3 HOW TO MAKE THE SERVICE REMOTE CONTROL UNIT:

Cut "A" portion of the attached remote control unit as shown in Fig. 1.

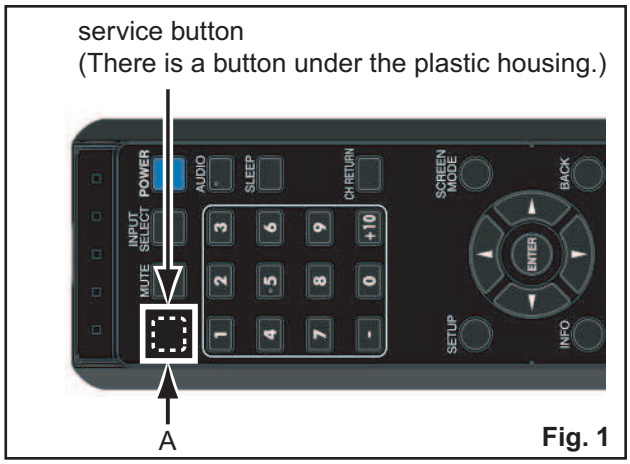


Fig. 1

4.4 HOW TO SET UP THE SERVICE MODE:

Service mode:

(1) Use the service remote control unit.
(2) Turn the power on.
(3) Press the service button on the service remote control unit. The following screen appears.

"*" differs depending on the models.

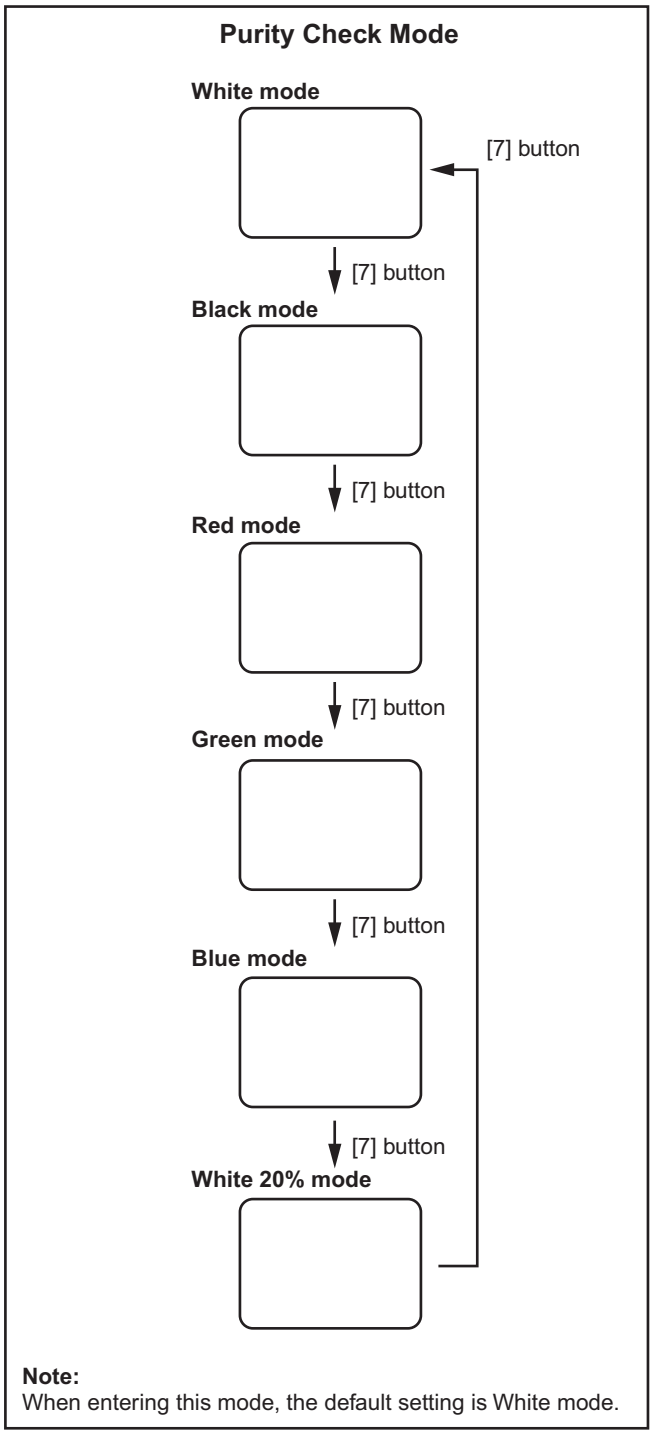
Code : ******** _ ***
Pic code : ** _ *** _ ** _ ***** _ ***
MIPS : Push 0key**

Tuner : ** _ ***** _ ****
Safety : safety_Non**

4.5 PURITY CHECK MODE

This mode cycles through full-screen displays of red, green, blue, and white to check for non-active pixels.

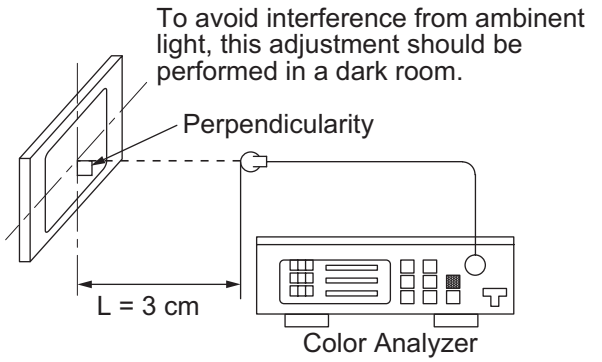
(1) Enter the Service mode.
(2) Each time pressing [7] button on the service remote control unit, the display changes as follows.



Note:
When entering this mode, the default setting is White mode.

4.6 VCOM ADJUSTMENT

Test Point	Adj. Point
Screen	[CHANNEL UP/DOWN] buttons
M. EQ.	**Spec.**
Color analyzer	See below
Figure	

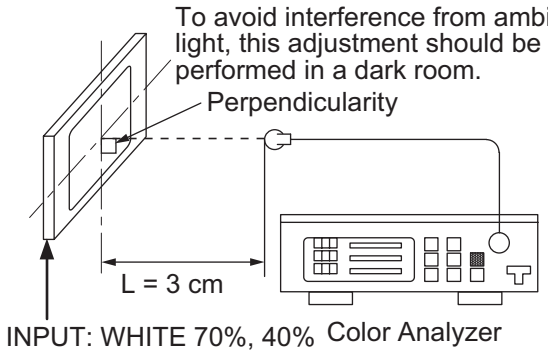

To avoid interference from ambinent light, this adjustment should be performed in a dark room.
Perpendicularity
L = 3 cm
Color Analyzer

(1) Operate the unit for more than 20 minutes.
(2) Set the color analyzer and bring the optical receptor to the center on the LCD-Panel surface after zero point calibration as shown above. **Note:** The optical receptor must be set perpendicularly to the LCD Panel surface.
(3) Enter the Service mode.
(4) Press [3] button on the service remote control unit.
(5) Press [CHANNEL UP/DOWN] buttons on the service remote control unit so that the color analyzer value becomes minimum.

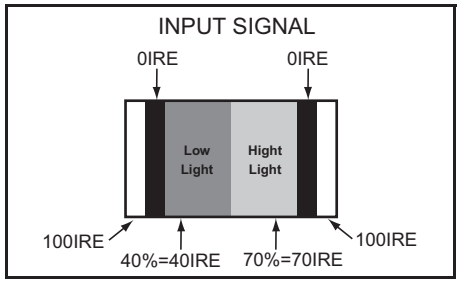
4.7 WHITE BALANCE ADJUSTMENT

The white balance adjustment should be performed when replacing the LCD Panel or Digital PWB.
Purpose: To mix red, green and blue beams correctly for pure white.
Symptom of Misadjustment: White becomes bluish or reddish.

Test Point	Adj. Point	Mode	Input
Screen	[VOLUME DOWN] button	**[VIDEO1]** C/D	White Raster (APL 70%) or (APL 40%)
M. EQ.		**Spec.**	
Pattern Generator, Color analyzer		x= 0.272 ± 0.005 y= 0.278 ± 0.005	
Figure			


To avoid interference from ambinent light, this adjustment should be performed in a dark room.
Perpendicularity
L = 3 cm
INPUT: WHITE 70%, 40%
Color Analyzer

(1) Operate the unit for more than 20 minutes.
(2) Input the White Raster(70%=70IRE, 40%=40IRE).



(3) Set the color analyzer to the CHROMA mode and bring the optical receptor to the center on the LCD-Panel surface after zero point calibration as shown above.
Note: The optical receptor must be set perpendicularly to the LCD Panel surface.
(4) Enter the Service mode. Press [VOLUME DOWN] button on the service remote control unit and select "C/D" mode.
(5) **[CUTOFF]**
Press [1] button to select “COR” for Red Cutoff adjustment.
Press [3] button to select “COB” for Blue Cutoff adjustment.
[DRIVE]
Press [4] button to select “DR” for Red Drive adjustment.
Press [6] button to select “DB” for Blue Drive adjustment.
(6) In each color mode, press [CHANNEL UP/DOWN] buttons to adjust the values of color.
(7) Adjust Cutoff and Drive so that the color temperature becomes 12000°K (x= 0.272 / y= 0.278 ±0.005).

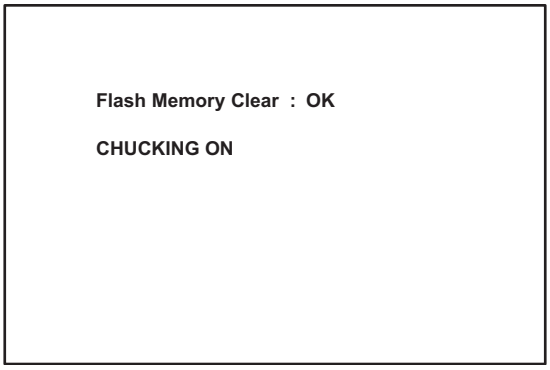
4.8 HOW TO INITIALIZE THE LCD TV/DVD

The purpose of initialization is to place the set in a new out of box condition. The customer will be prompted to select a language and program channels after the set has been initialized.
To put the program back at the factory-default, initialize the LCD TV/DVD using the following procedure.

4.8.1 DVD SECTION

(1) Turn the power on.
(2) To enter the service mode, press the service button on the service remote control unit.
- To cancel the service mode, press [POWER] button on the service remote control unit.

(3) To put the LCD TV/DVD into the DVD mode, press [CH RETURN] on the remote control unit.
(4) To put the LCD TV/DVD into the Flash clear mode, press [INPUT SELECT] buttons on the remote control unit in that order within five seconds. The following screen appears.



When "OK" appears on the screen, the factory default will be set.
(5) To exit this mode, press[CHANNEL UP/DOWN] button to go to TV mode, or press [POWER] button to turn the power off.

4.8.2 LCD TV SECTION

(1) Turn the power on.
(2) To enter the service mode, press the service button on the service remote control unit.
- To cancel the service mode, press [POWER] button on the service remote control unit.

(3) Press [INFO] button on the service remote control unit to initialize the LCD television.
(4) "INITIALIZED" will appear in the upper right of the screen. "INITIALIZED" color will change to green from red when initializing is complete.

4.9 FIRMWARE RENEWAL MODE

4.9.1 DVD SECTION

(1) Turn the power on and press [EJECT] button on the remote control unit to put the LCD TV/DVD into DVD mode. Then remove the disc.

(2) To put the LCD TV/DVD into F/W version up mode, press [9], [8], [7], [6], and [MODE] buttons on the remote control unit in that order.
Fig. a appears on the screen.

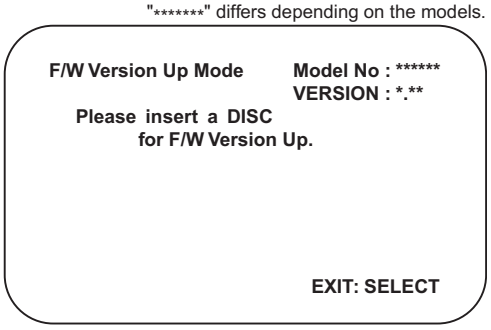


Fig. a Version Up Mode Screen

(3) Insert the disc for version up into the disc slot.

(4) The LCD TV/DVD enters the F/W version up mode automatically. Fig. b appears on the screen. Make sure to insert the proper F/W for the state of this model.

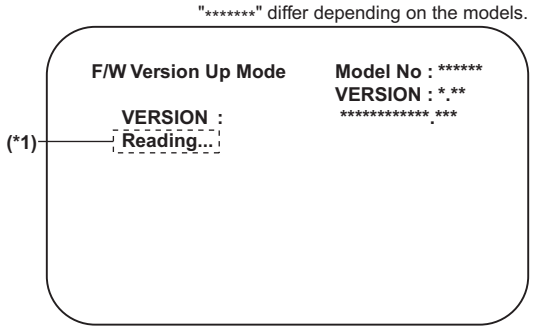


Fig. b Programing Mode Screen

The appearance shown in (*1) of Fig. b is described as follows:

No.	Appearance	State
1	Reading...	Sending files into the memory
2	Erasing...	Erasing previous version data
3	Programming...	Writing new version data

(5) After programming is finished, the disc will be ejected automatically. Fig. c appears on the screen and the checksum will be shown in (*2).

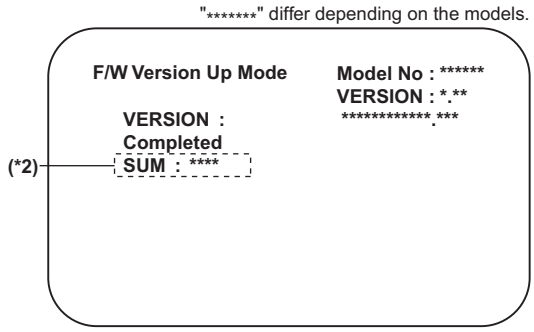


Fig. c Completed Program Mode Screen

At this time, no button is available.

(6) Remove the disc.

(7) Unplug the AC cord from the AC outlet. Then plug it again.

(8) Press [EJECT] button on the remote control unit to put the LCD TV/DVD into DVD mode again.

(9) Press [1], [2], [3], [4], and [INFO] buttons on the remote control unit in that order. Fig. d appears on the screen.

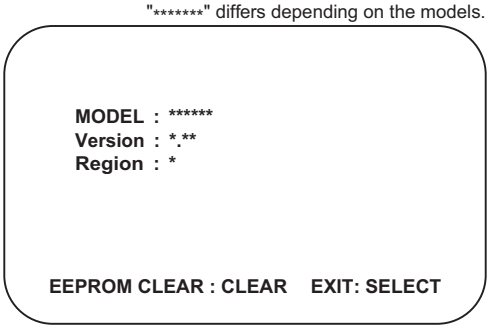


Fig. d

(10) Press [CLEAR] button on the remote control unit. Fig. e appears on the screen.

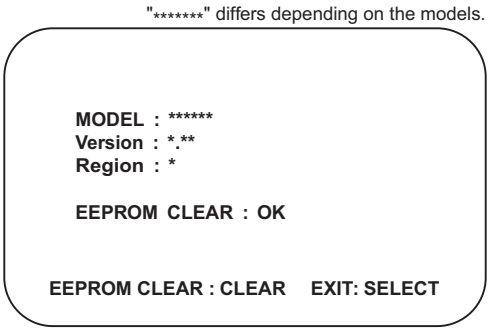


Fig. e

When “OK” appears on the screen, the factory default will be set. Then the firmware renewal mode is complete.

(11) To exit this mode, press [CHANNEL UP/DOWN] button to go to TV mode, or press [POWER] button to turn the power off.

4.9.2 LCD TV SECTION

4.9.2.1 EQUIPMENT REQUIRED

a. USB memory
b. Remote Control Unit

4.9.2.2 FIRMWARE UPDATE PROCEDURE

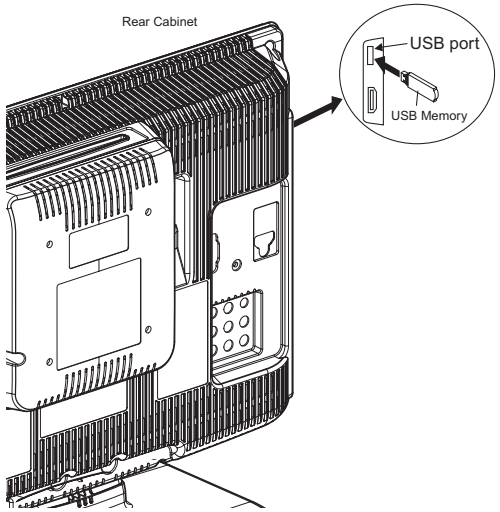
NOTE:

There are two states (the User Upgrade and the Factory Upgrade) in firmware update.

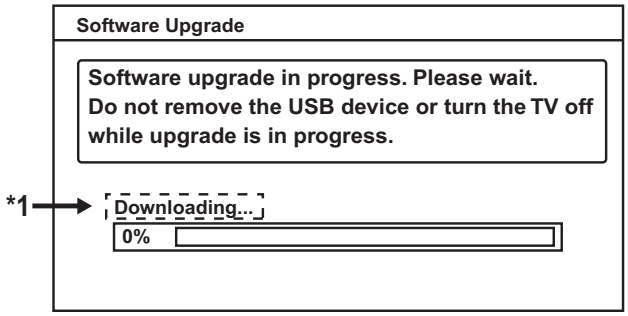
User Upgrade	Upgrade the firmware only. The setting values are not initialized.
Factory upgrade	Upgrade the firmware and initialize the setting values.

The identification of User Upgrade and Factory Upgrade are done by the filename.

(1) Turn the power off and unplug the AC Cord.
(2) Insert the USB memory to the USB port as shown below.



(3) Plug the AC cord in the wall outlet and turn the power on.
(4) The update will start and the following will appear on the screen.


Software Upgrade
Software upgrade in progress. Please wait.
Do not remove the USB device or turn the TV off while upgrade is in progress.
*1
Downloading...
0%

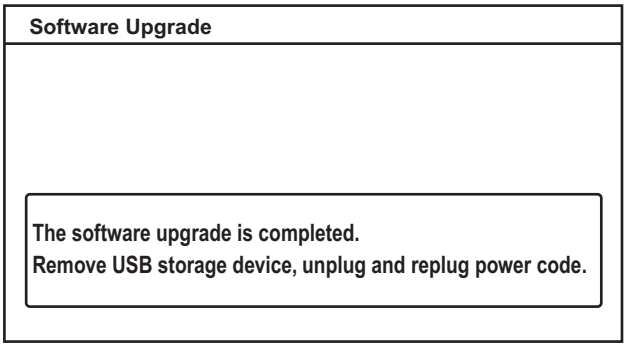
NOTE:

If the above screen isn't displayed, repeat from step 1.

The appearance shown in *1 is described as follows.

Appearance	State
Downloading...	Downloading the firmware from the USB memory.
Writing...	Writing the downloaded firmware in flash memory.
Checking...	Checking the new firmware.

(5) When the firmware update is completed, the following will appear on the screen.



Unplug the AC cord and kindly remove the USB memory from the USB port. Plug the AC cord in the wall outlet again and turn the power on.

NOTE:

When the Factory Upgrade is used, after restarting TV, shift to initial screen menu in service mode. "INITIALIZED" will appear on the upper right of the screen. "INITIALIZED" color will change to green from red when initializing is complete.

SECTION 5
TROUBLESHOOTING

[Power Supply Section]

FLOW CHART NO.1

The power cannot be turned on.

↓

Is the fuse (F601) normal? — No → See FLOW CHART No.2 <The fuse blows out.>

↓ Yes

Is normal state restored when once unplugged power cord is plugged again several seconds? — No → Check if there is any leak or short-circuiting on the primary circuit component, and service it if defective. (D601, D602, D603, D604, Q601, Q602, T601)

↓ Yes

Is the INV+31V line voltage normal? — No → (same as above)

↓ Yes

Check each rectifying circuit of the secondary circuit and service it if defective.

FLOW CHART NO.2

The fuse blows out.

↓

Check the presence that the primary component is leaking or shorted and service it if defective.

Check the presence that the rectifying diode or circuit is shorted in each rectifying circuit of secondary side, and service it if defective.

↓

After servicing, replace the fuse.

FLOW CHART NO.3

When the output voltage fluctuates.

↓

Does the photocoupler circuit on the secondary side operate normally? — No → Check IC601, D633, Q631 and their periphery circuit, and service it if defective.

↓ Yes

Check IC601, D608, D610 and their periphery, circuit and service it if defective.

FLOW CHART NO.4

When buzz sound can be heard in the vicinity of power circuit.

↓

Check if there is any short-circuit on the rectifying diode and the circuit in each rectifying circuit of the secondary side, and service it if defective. (IC631, IC901, Q201, Q205, Q206, Q634, Q635, Q636, Q637, Q640, Q641, Q643, Q901, Q903, Q904, D631, D632, D636, D638, D639, D640, D641, D643)

FLOW CHART NO.5

INV+31V is not output.

↓

Is approximately +31V voltage supplied to the cathode of D632? — No → Check C632, D632, D633 and their periphery circuit, and service it if defective.

↓ Yes

Check D667, R655 and their periphery circuit, and service it if defective.

FLOW CHART NO.6

PANEL+24.5V is not output.

↓

Is approximately +30V voltage supplied to the collector of Q205?

No → See FLOW CHART No.5

↓ Yes

Check Q202, Q203, D203, P-ON-H1 line and their periphery circuit, and service it if defective.

FLOW CHART NO.7

PANEL+13V is not output.

↓

Is approximately +15V voltage supplied to the collector of Q201?

No → Check C631, D631, D668 and their periphery circuit, and service it if defective.

↓ Yes

Is approximately +13V voltage supplied to the base of Q201?

No → Check Q202, Q203, D201, D202, D210 and their periphery circuit, and service it if defective.

↓ Yes

Replace Q201.

FLOW CHART NO.8

P-ON+7V is not output.

↓

Is approximately +7V voltage supplied to the cathode of D641?

No → Check C641, D641 and their periphery circuit, and service it if defective.

↓ Yes

Check if there is any leak or short-circuit on the loaded circuit, and service it if defective.

FLOW CHART NO.9

P-ON+5V is not output. (PANEL+13V is outputted normally.)

↓

Is approximately +6.8V voltage supplied to the collector of Q635?

No → See FLOW CHART No.8

↓ Yes

Is approximately +6V voltage supplied to the base of Q635 and the base of Q636?

No → Check D659 and their periphery circuit, and service it if defective.

↓ Yes

Replace Q635 and Q636.

FLOW CHART NO.10

TUNER+5V is not output. (PANEL+13V is outputted normally.)

Is approximately +6.7V voltage supplied to the collector of Q637?

No → See FLOW CHART No.8

Yes

Is approximately +6V voltage supplied to the base of Q637?

No → Check D659 and their periphery circuit, and service it if defective.

Yes

Replace Q637.

FLOW CHART NO.11

P-ON+3V is not output.

Is approximately +3V voltage supplied to the cathode of D638?

No → Check C638, D638 and their periphery circuit, and service it if defective.

Yes

Check if there is any leak or short-circuit on the loaded circuit, and service it if defective.

FLOW CHART NO.12

P-ON+3.3V(PANEL+3.3V) is not output.

Is approximately +5V voltage supplied to the cathode of D639?

No → Check C639, D639 and their periphery circuit, and service it if defective.

Yes

Is the "H" signal (approximately +3.5V) inputted to the base of Q640?

No → Check Q638, Q639, P-ON-H2 line and their periphery circuit, and service it if defective.

Yes

Replace Q640.

FLOW CHART NO.13

EV+3.3V is not output.

Is approximately +4.6V voltage supplied to the collector of Q903?

No → Check C638, D638 and their periphery circuit, and service it if defective.

Yes

Check Q903, D905 and their periphery circuit, and service it if defective.

FLOW CHART NO.14

DVD-ON+3.3V is not output.

Is approximately +5V voltage supplied to the collector of Q904?

No → Check C638, D638 and their periphery circuit, and service it if defective.

Yes

Check Q904, D906, and their periphery circuit, and service it if defective.

FLOW CHART NO.15

EV+9V is not output. (PANEL+13V is outputted normally.)

Is approximately +13V voltage supplied to the collector of Q905?

No → Check C643, D643, D644 and their periphery circuit, and service it if defective.

Yes

Check Q905, D901 and their periphery circuit, and service it if defective.

FLOW CHART NO.16

EV+1.2V is not output.

Is approximately +5V voltage supplied to the emitter of Q901?

No → Check C640, D640 and their periphery circuit, and service it if defective.

Yes

Is approximately +4V voltage supplied to Pin(3) of IC901?

No → Check Q901, Q902, DVD-MAIN PWR line and their periphery circuit, and service it if defective.

Yes

Replace IC901.

FLOW CHART NO.17

P-ON+9V is not output. (PANEL+13V is outputted normally.)

Is approximately +13V voltage supplied to the collector of Q641?

No → Check C643, D643, D644 and their periphery circuit, and service it if defective.

Yes

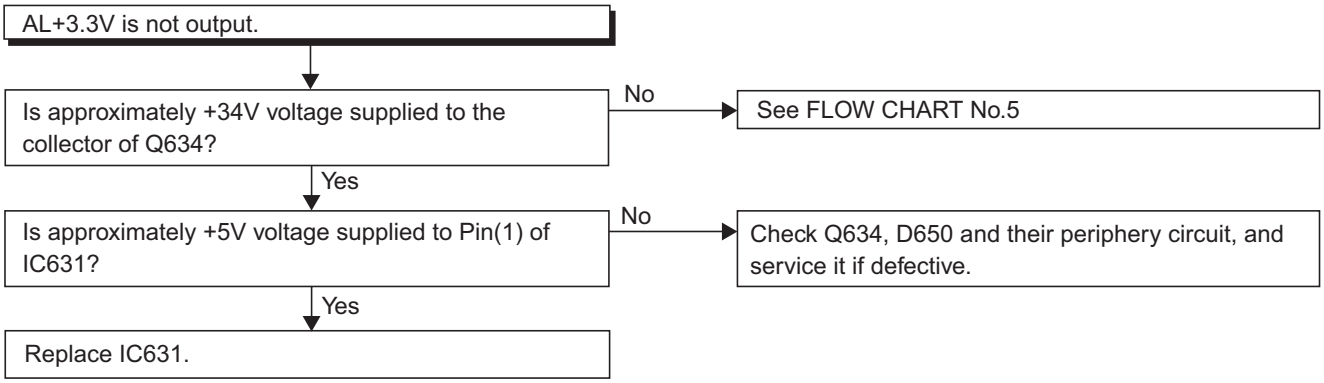
Is approximately +10V voltage supplied to the base of Q641?

No → Check D666 and their periphery circuit, and service it if defective.

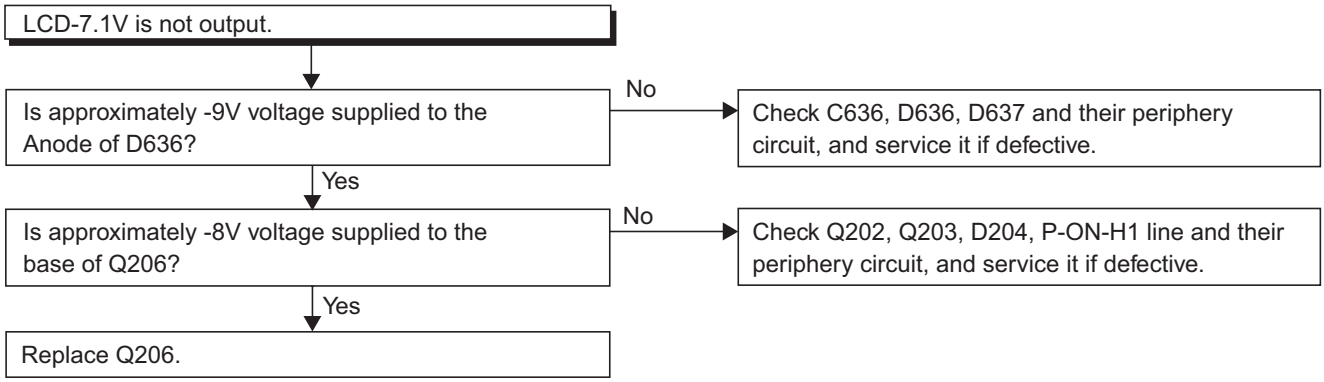
Yes

Replace Q641.

FLOW CHART NO.18


AL+3.3V is not output.
Is approximately +34V voltage supplied to the collector of Q634?
No
See FLOW CHART No.5
Yes
Is approximately +5V voltage supplied to Pin(1) of IC631?
No
Check Q634, D650 and their periphery circuit, and service it if defective.
Yes
Replace IC631.

FLOW CHART NO.19


LCD-7.1V is not output.
Is approximately -9V voltage supplied to the Anode of D636?
No
Check C636, D636, D637 and their periphery circuit, and service it if defective.
Yes
Is approximately -8V voltage supplied to the base of Q206?
No
Check Q202, Q203, D204, P-ON-H1 line and their periphery circuit, and service it if defective.
Yes
Replace Q206.

[Video Signal Section]

FLOW CHART NO.1

The key operation is not functioning.

↓

Are the contact point and installation state of the key switches (SW104~SW109, SW951~SW953) normal?

No → Re-install the switches (SW104~SW109, SW951~SW953) correctly or replace the poor switch.

↓ Yes

When pressing each switches (SW104~SW109, SW951~SW953) do the voltage of Pin(29) of CN302 and Pin(2) of CN303 increase?

No → Check the switches (SW104~SW109, SW951~SW953) and their periphery, and service it if defective.

↓ Yes

Replace Digital Main PWB Unit.

FLOW CHART NO.2

No operation is possible from the remote control unit.

↓

Operation is possible from the remote control unit.

↓

Is 3.3V voltage supplied to Pin(2) terminal of the remote control receiver (RS101)?

No → Check AL+3.3V line and service it if defective.

↓ Yes

Is the "L" pulse sent out Pin(1) terminal of remote control receiver (RS101) when the infrared remote control is activated?

No → Replace the remote control receiver(RS101) or the remote control unit.

↓ Yes

Is the "L" pulse supplied to Pin(25) of CN301?

No → Check the line between Pin(1) terminal of remote control receiver(RS101) and Pin(25) of CN301, and service it if defective.

↓ Yes

Replace Digital Main PWB Unit.

FLOW CHART NO.3

Picture does not appear normally.(Video input)

↓

Are the video signal inputted to Pin(4) of CN302?

No → Check the line between Pin(4) of CN302 and JK752, and service it if defective.

↓ Yes

Replace Digital Main PWB Unit or LCD Module Assembly.

FLOW CHART NO.4

Picture does not appear normally.(Tuner input)

↓

Are the DIF signal inputted to Pin(26,28) of CN302?

No → Check the line between Pin(26, 28) of CN302 and Pin(10, 11) of TU302, and service it if defective.

Yes ↓

Replace Digital Main PWB Unit or LCD Module Assembly.

FLOW CHART NO.5

Picture does not appear normally.(S-Video input)

↓

Are the video signal outputted to Pin(6, 8) of CN302?

Pin(6): S-VIDEO-C
Pin(8): S-VIDEO-Y

No → Check the line between Pin(6, 8) of CN302 and JK751, and service it if defective.

Yes ↓

Replace Digital Main PWB Unit or LCD Module Assembly.

FLOW CHART NO.6

Picture does not appear normally.(Y/Pb/Pr input)

↓

Are the video signal inputted to Pin(15, 17, 19) of CN302?

Pin(15): VIDEO-Y
Pin(17): VIDEO-Pb
Pin(19): VIDEO-Pr

No → Check the line between Pin(15, 17, 19) of CN302 and input terminals(JK731, JK732, JK733), and service it if defective.

Yes ↓

Replace Digital Main PWB Unit or LCD Module Assembly.

FLOW CHART NO.7

Picture does not appear normally.(DVD PB)

↓

Are the video signal inputted to Pin(1, 3, 5) of CN902?

Pin(9) : DVD-Y
Pin(11) : DVD-Pb
Pin(13) : DVD-Pr

No → Replace DVD Main PWB Unit.

Yes ↓

Replace Digital Main PWB Unit or LCD Module Assembly.

[Audio Signal Section]

FLOW CHART NO.1

Audio is not outputted normally.(Audio input)

Are the audio(L/R) signals inputted to Pin(2, 15) of IC771?
- No → Check the line between Pin(2, 15) of IC771 and input terminal(JK753, JK754), and service it if defective.
- Yes ↓

Are the audio(L/R) signals inputted to Pin(6, 8) of CN301?
- No → Replace Digital Main PWB Unit.
- Yes ↓

Are the audio(L/R) signals inputted to Pin(3, 5) of IC803?
- No → Check the line between Pin(6, 8) of CN301 and Pin(3, 5) of IC803, and service it if defective.
- Yes ↓

Are the audio(L/R) signals outputted to Pin(1, 7) of IC803?
- No → Replace IC803
- Yes ↓

Are the audio(L/R) signals inputted to Pin(1, 9) of IC801?
- No → Check the line between Pin(1, 7) of IC803 and Pin(1, 9) of IC801, and service it if defective.
- Yes ↓

Are the audio(L/R) signals outputted to Pin(4, 6) of IC801?
- No → Check IC801 and their periphery circuit, and service it if defective.
- Yes ↓

Check SP861,SP862 and their periphery circuit, and service it if defective.

FLOW CHART NO.2

Audio is not outputted normally.(Component Audio input)

Are the audio(L/R) signals inputted to Pin(4, 11) of IC771?
- No → Check the line between Pin(4, 11) of IC771 and input terminal(JK741, JK742), and service it if defective.
- Yes ↓

Are the audio(L/R) signals inputted to Pin(6, 8) of CN301?
- No → Replace Digital Main PWB Unit.
- Yes ↓

Are the audio(L/R) signals inputted to Pin(3, 5) of IC803?
- No → Check the line between Pin(6, 8) of CN301 and Pin(3, 5) of IC803, and service it if defective.
- Yes ↓

Are the audio(L/R) signals outputted to Pin(1, 7) of IC803?
- No → Replace IC803
- Yes ↓

Are the audio(L/R) signals inputted to Pin(1, 9) of IC801?
- No → Check the line between Pin(1, 7) of IC803 and Pin(1, 9) of IC801, and service it if defective.
- Yes ↓

Are the audio(L/R) signals outputted to Pin(4, 6) of IC801?
- No → Check IC801 and their periphery circuit, and service it if defective.
- Yes ↓

Check SP861,SP862 and their periphery circuit, and service it if defective.

FLOW CHART NO.3

Audio is not outputted normally.(Tuner input)

Are the DIF signals outputted to Pin(26, 28) of CN302?
- No → Check TU302 and their periphery circuit, and service it if defective.
- Yes ↓

Are the audio(L/R) signals inputted to Pin(6, 8) of CN301?
- No → Replace Digital Main PWB Unit.
- Yes ↓

Are the audio(L/R) signals inputted to Pin(3, 5) of IC803?
- No → Check the line between Pin(6, 8) of CN301 and Pin(3, 5) of IC803, and service it if defective.
- Yes ↓

Are the audio(L/R) signals outputted to Pin(1, 7) of IC803?
- No → Replace IC803
- Yes ↓

Are the audio(L/R) signals inputted to Pin(1, 9) of IC801?
- No → Check the line between Pin(1, 7) of IC803 and Pin(1, 9) of IC801, and service it if defective.
- Yes ↓

Are the audio(L/R) signals outputted to Pin(4, 6) of IC801?
- No → Check IC801 and their periphery circuit, and service it if defective.
- Yes ↓

Check SP861,SP862 and their periphery circuit, and service it if defective.

FLOW CHART NO.4

Audio is not outputted normally.(HDMI Audio input)

Are the audio(L/R) signals inputted to Pin(5, 14) of IC771?
- No → Check the line between Pin(5, 14) of IC771 and input terminal(JK721, JK722), and service it if defective.
- Yes ↓

Are the audio(L/R) signals inputted to Pin(6, 8) of CN301?
- No → Replace Digital Main PWB Unit.
- Yes ↓

Are the audio(L/R) signals inputted to Pin(3, 5) of IC803?
- No → Check the line between Pin(6, 8) of CN301 and Pin(3, 5) of IC803, and service it if defective.
- Yes ↓

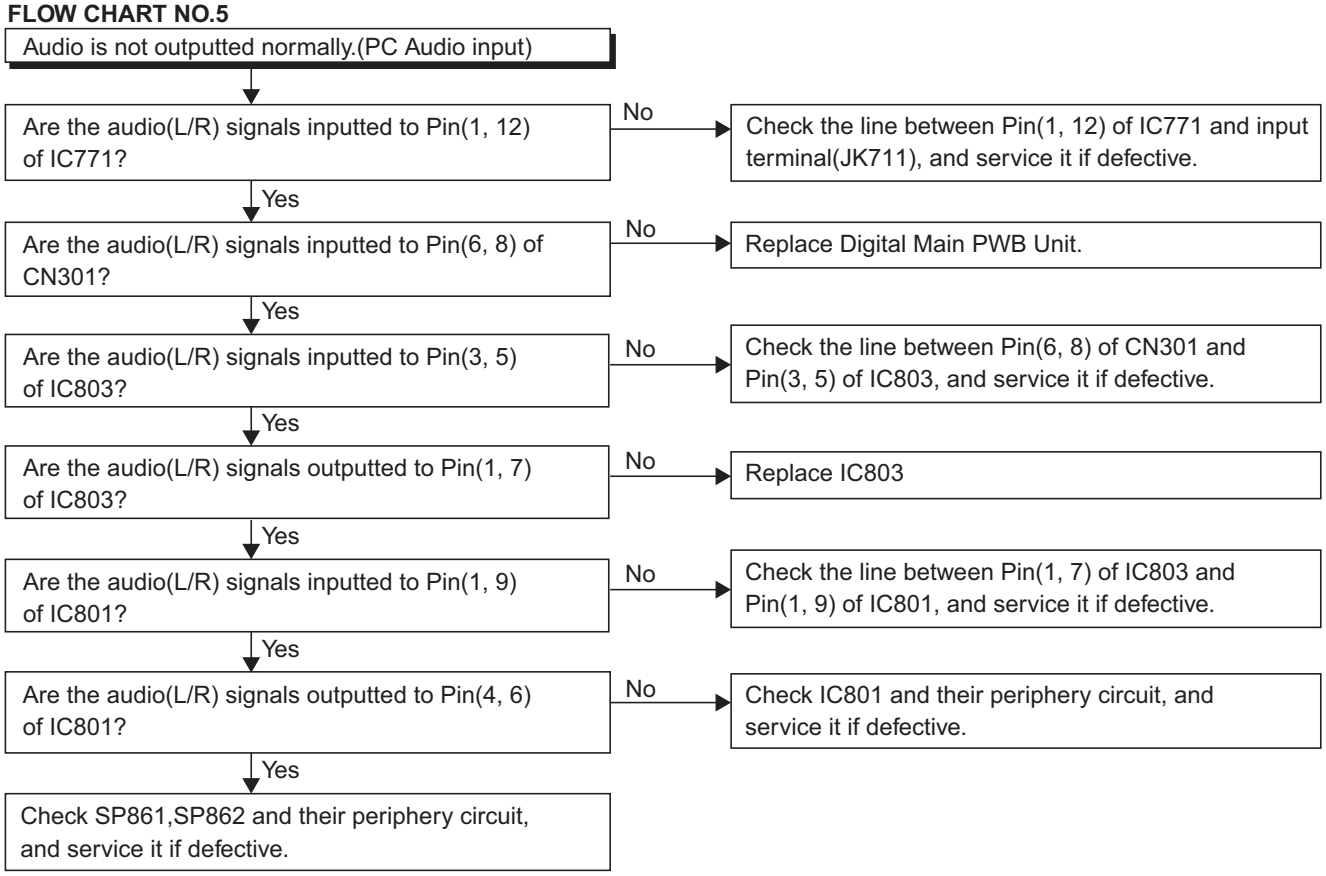
Are the audio(L/R) signals outputted to Pin(1, 7) of IC803?
- No → Replace IC803
- Yes ↓

Are the audio(L/R) signals inputted to Pin(1, 9) of IC801?
- No → Check the line between Pin(1, 7) of IC803 and Pin(1, 9) of IC801, and service it if defective.
- Yes ↓

Are the audio(L/R) signals outputted to Pin(4, 6) of IC801?
- No → Check IC801 and their periphery circuit, and service it if defective.
- Yes ↓

Check SP861,SP862 and their periphery circuit, and service it if defective.

FLOW CHART NO.5


Audio is not outputted normally.(PC Audio input)
Are the audio(L/R) signals inputted to Pin(1, 12) of IC771?
No
Check the line between Pin(1, 12) of IC771 and input terminal(JK711), and service it if defective.
Yes
Are the audio(L/R) signals inputted to Pin(6, 8) of CN301?
No
Replace Digital Main PWB Unit.
Yes
Are the audio(L/R) signals inputted to Pin(3, 5) of IC803?
No
Check the line between Pin(6, 8) of CN301 and Pin(3, 5) of IC803, and service it if defective.
Yes
Are the audio(L/R) signals outputted to Pin(1, 7) of IC803?
No
Replace IC803
Yes
Are the audio(L/R) signals inputted to Pin(1, 9) of IC801?
No
Check the line between Pin(1, 7) of IC803 and Pin(1, 9) of IC801, and service it if defective.
Yes
Are the audio(L/R) signals outputted to Pin(4, 6) of IC801?
No
Check IC801 and their periphery circuit, and service it if defective.
Yes
Check SP861,SP862 and their periphery circuit, and service it if defective.

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(No.YA711<Rev.002>)

Printed in Japan
VSE

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS	
CR	Carbon Resistor
FR	Fusible Resistor
PR	Plate Resistor
VR	Variable Resistor
HV R	High Voltage Resistor
MF R	Metal Film Resistor
MG R	Metal Glazed Resistor
MP R	Metal Plate Resistor
OM R	Metal Oxide Film Resistor
CMF R	Coating Metal Film Resistor
UNF R	Non-Flammable Resistor
CH V R	Chip Variable Resistor
CH MG R	Chip Metal Glazed Resistor
COMP. R	Composition Resistor
LPTC R	Linear Positive Temperature Coefficient Resistor

CAPACITORS	
C CAP.	Ceramic Capacitor
E CAP.	Electrolytic Capacitor
M CAP.	Mylar Capacitor
CH CAP.	Chip Capacitor
HV CAP.	High Voltage Capacitor
MF CAP.	Metalized Film Capacitor
MM CAP.	Metalized Mylar Capacitor
MP CAP.	Metalized Polystyrol Capacitor
PP CAP.	Polypropylene Capacitor
PS CAP.	Polystyrol Capacitor
TF CAP.	Thin Film Capacitor
MPP CAP.	Metalized Polypropylene Capacitor
TAN. CAP.	Tantalum Capacitor
CH C CAP.	Chip Ceramic Capacitor
BP E CAP.	Bi-Polar Electrolytic Capacitor
CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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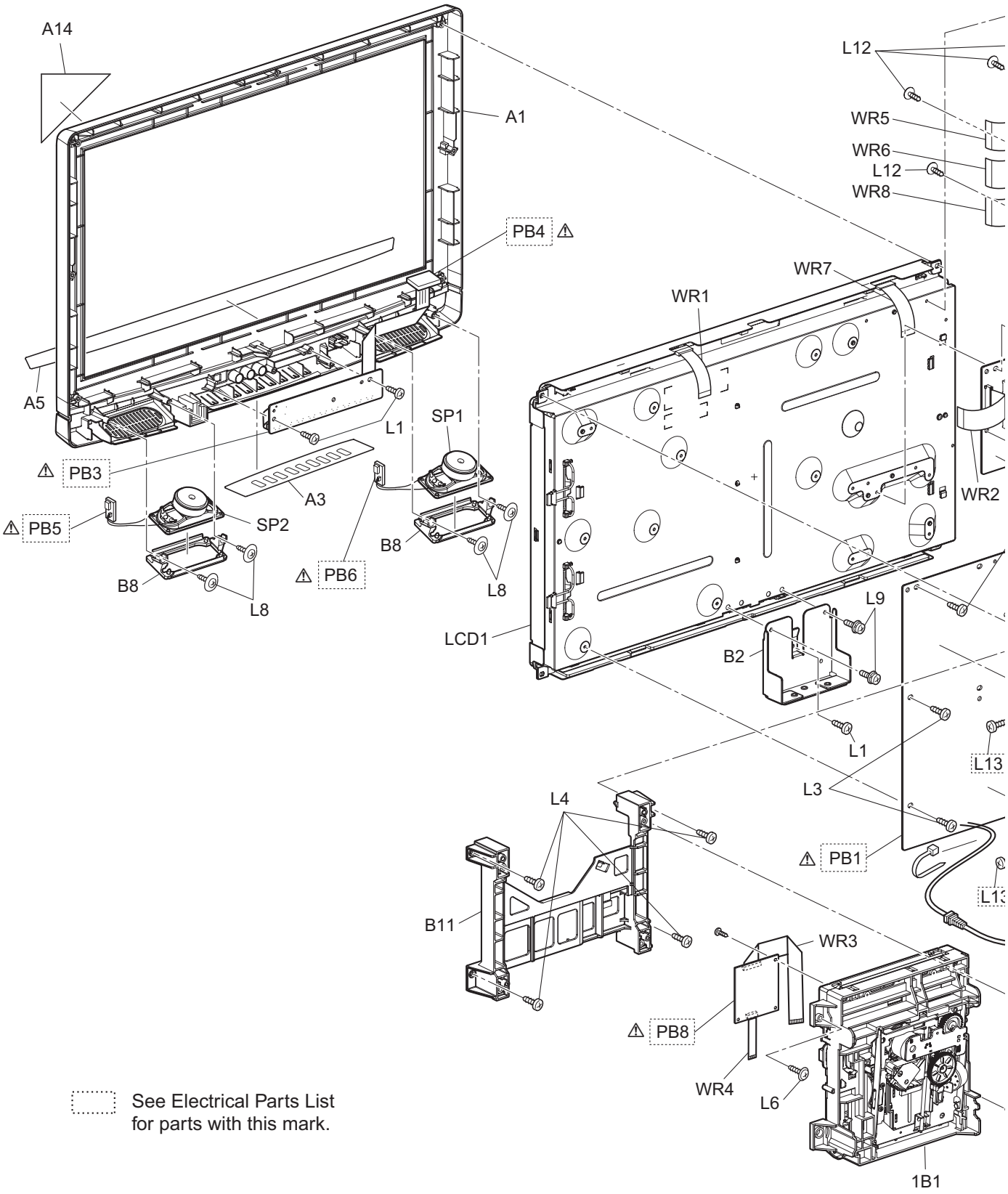
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y name	P.W.B ASS'Y No.
	LT-19D200/AK
MAIN PWB P.W.B	FU-1ESA21430
JACK PWB P.W.B	FU-1ESA20948-1
FUNCTION PWB P.W.B	FU-1ESA20948-2
JUNCTION-A P.W.B	FU-1ESA20948-3
JUNCTION-B P.W.B	FU-1ESA20948-4
JUNCTION-C P.W.B	FU-1ESA20948-5
DIGITAL MAIN PWB UNIT	FU-1ESA19805 (Not supply individual parts of this PWB.)
DVD MAIN PWB UNIT	FU-N7EX2KUP (Not supply individual parts of this PWB.)

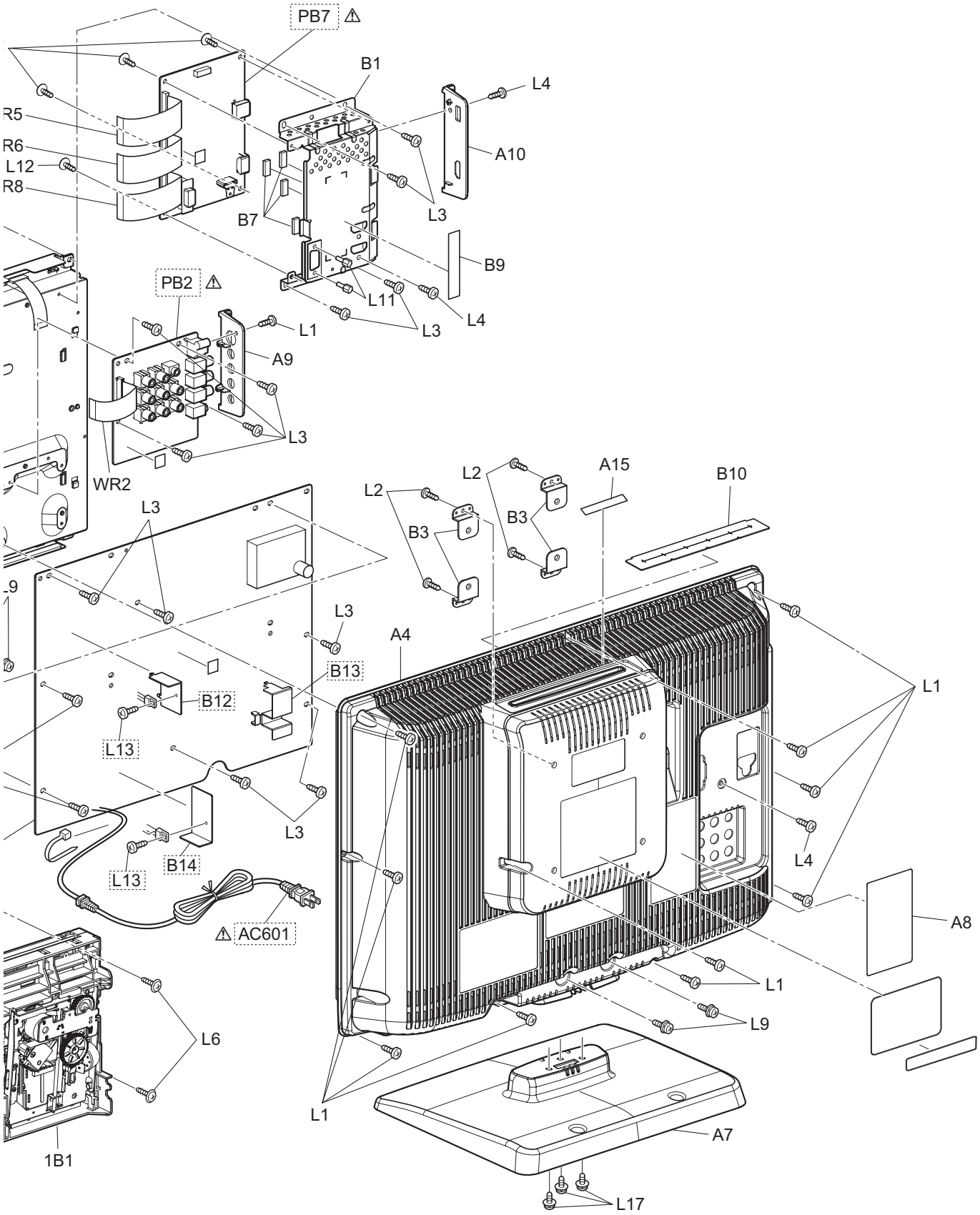
EXPLODED VIEW PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1B1	FU-N7XT3KVM	DVD MECHA SLOT		
	A 1	FU-1EM123674	FRONT CABINET		
	A 3	FU-1EM325657	CONTROL PLATE		
	A 4	FU-1EM023466	REAR CABINET		
	A 5	FU-1EM223304	DECORATION PLATE		
	A 7	FU-1ESA20125	STAND ASSEMBLY		
	A 8	FU-1EM428257	JACK LABEL		
	A 9	FU-1EM222783	JACK HOLDER(A)		
	A 10	FU-1EM222784	JACK HOLDER(D)		
	A 14	----------	POP LABEL		
	A 15	----------	CAUTION LABEL		
	B 1	FU-1EM222764	SHIELD BOX		
	B 2	FU-1EM325619	STAND HOLDER		
	B 3	FU-1EM323797	WALL MOUNT BRACKET	(x4)	
	B 7	FU-1EM425861	GASKET	(x4)	
	B 8	FU-1EM325677	SPEAKER HOLDER	(x2)	
	B 9	----------	LASER CAUTION LABEL		
	B 10	FU-1EM428797	FELT		
	B 11	FU-1EM123213	DVD HOLDER		
	L 1	FU-GBHP3100	SCREW	(x14)	
	L 2	FU-GBJP3080	SCREW	(x4)	
	L 3	FU-GBJS3060	SCREW	(x15)	
	L 4	FU-GBHS3080	SCREW	(x7)	
	L 6	FU-GCJP3120	SCREW	(x3)	
	L 8	FU-1EM420633A	ASSEMBLED SCREW	(x4)	
	L 9	FU-FPH34100	SCREW	M4x10(x4)	
	L 11	FU-1EM422042	HEX SCREW	(x2)	
	L 12	FU-1EM424392A	ASSEMBLED SCREW	(x4)	
	L 17	FU-1ESA19526	STAND SCREW KIT	Inc.PolyBag(x3)	
	LCD1	FU-UH19MXA	LCD MODULE		
	SP1	FU-DS16070XQ001	SPEAKER		
	SP2	FU-DS16070XQ001	SPEAKER		
	WR 1	FU-WX1A94N0-105	WIRE ASSEMBLY		
	WR 2	FU-WX1A94F0-101	WIRE ASSEMBLY		
	WR 3	FU-WX1A94N0-112	WIRE ASSEMBLY		
	WR 4	FU-WX1A94N0-103	WIRE ASSEMBLY		
	WR 5	FU-WX1A94F0-101	WIRE ASSEMBLY		
	WR 6	FU-WX1A94F0-111	WIRE ASSEMBLY		
	WR 7	FU-WX1A94N0-106	WIRE ASSEMBLY		
	WR 8	FU-WX1A94F0-101	WIRE ASSEMBLY		
⚠	PB 1	FU-1ESA21430	MAIN PWB		
⚠	PB 2	FU-1ESA20948-1	JACK PWB		
⚠	PB 3	FU-1ESA20948-2	FUNCTION PWB		
⚠	PB 4	FU-1ESA20948-3	JUNCTION-A PWB		
⚠	PB 5	FU-1ESA20948-4	JUNCTION-B PWB		
⚠	PB 6	FU-1ESA20948-5	JUNCTION-C PWB		
⚠	PB 7	FU-1ESA19805	DIGITAL MAIN PWB UNIT		
⚠	PB 8	FU-N7EX2KUP	DVD MAIN PWB UNIT		

EXPLODED VIEW



See Electrical Parts List for parts with this mark.


PB7 ⚠
B1
L4
A10
L3
B7
B9
L11
L3
L4
PB2 ⚠
L1
A9
L3
WR2
L2
L2
A15
B10
B3
B3
L3
L3
A4
B13
B12
L13
L3
L13
B14
⚠ AC601
L1
L4
A8
L1
L9
L6
L1
A7
1B1
L17

PRINTED WIRING BOARD PARTS LIST

MAIN P.W. BOARD ASS'Y (FU-1ESA21430)

⚠Ref No.	Part No.	Part Name	Description	Local
IC1001	FU-NSCA0T0TY006	IC		
IC1002	FU-NSZBA0TJY030	IC		
IC201	FU-NSZBA0TTY115	IC		
⚠IC601	FU-NPECLTV817MF	PHOTO COUPLER		
IC631	FU-NSZBA0SSS046	IC		
IC801	FU-NSCA0SNXP003	IC		
IC803	FU-QSZBA0TJR089	IC		
IC901	FU-NSZBA0SSS046	IC		
IC902	FU-QSZBA0TJR089	IC		
Q1001	FU-NQS4KTC3199P	TRANSISTOR		
Q1002	FU-NQS4KTC3199P	TRANSISTOR		
Q1003	FU-NQS4KTC3199P	TRANSISTOR		
Q1004	FU-NQS4KTC3199P	TRANSISTOR		
⚠Q1005	FU-QF2ZTPC8214H	MOS FET		
Q1006	FU-NQS1KTA1267P	TRANSISTOR		
Q1007	FU-NQS1KTA1267P	TRANSISTOR		
Q1008	FU-NQS4KTC3199P	TRANSISTOR		
Q1009	FU-NQS4KTC3199P	TRANSISTOR		
Q1010	FU-NQS4KTC3199P	TRANSISTOR		
Q1011	FU-QQSY02SA950F	TRANSISTOR		
Q1012	FU-NQS4KTC3199P	TRANSISTOR		
Q1014	FU-NQS4KTC3199P	TRANSISTOR		
Q1015	FU-NQS4KTC3199P	TRANSISTOR		
Q1016	FU-NQS4KTC3199P	TRANSISTOR		
Q1017	FU-NQS4KTC3199P	TRANSISTOR		
Q1018	FU-NQS1KTA1267P	TRANSISTOR		
Q1019	FU-NQS4KTC3199P	TRANSISTOR		
⚠Q1022	FU-QF2ZTPC8214H	MOS FET		
Q1023	FU-NQS4KTC3199P	TRANSISTOR		
Q1024	FU-NQS1KTA1267P	TRANSISTOR		
Q171	FU-NQS4KTC3199P	TRANSISTOR		
Q172	FU-NQS4KTC3199P	TRANSISTOR		
Q201	FU-QQUF002SD400	TRANSISTOR		
Q202	FU-NQS1KTA1267P	TRANSISTOR		
Q203	FU-NQS4KTC3199P	TRANSISTOR		
Q205	FU-NQS4KTC3199P	TRANSISTOR		
Q206	FU-NQS4KTC3199P	TRANSISTOR		
Q207	FU-QQSY2SC2655F	TRANSISTOR		
Q208	FU-QQSY2SA1020F	TRANSISTOR		
Q209	FU-NQS4KTC3199P	TRANSISTOR		
Q210	FU-NQS4KTC3199P	TRANSISTOR		
Q401	FU-NQS4KTC3199P	TRANSISTOR		
Q402	FU-NQS4KTC3199P	TRANSISTOR		
⚠Q601	FU-QFWZ2SK3563Q	MOS FET		
⚠Q602	FU-QQSY2SC2120F	TRANSISTOR		
Q631	FU-NQS4KTC3199P	TRANSISTOR		
Q633	FU-NQS4KTC3199P	TRANSISTOR		
Q634	FU-NQS4KTC3199P	TRANSISTOR		
Q635	FU-QQSY2SC2120F	TRANSISTOR		
Q636	FU-QQSY2SC2120F	TRANSISTOR		
Q637	FU-QQSY2SC2120F	TRANSISTOR		
Q638	FU-NQS4KTC3199P	TRANSISTOR		
Q639	FU-NQS1KTA1267P	TRANSISTOR		
Q640	FU-QQWZ2SC4881F	POW TRANSISTOR		
Q641	FU-NQS4KTC3199P	TRANSISTOR		
Q643	FU-QQSY02SA950F	TRANSISTOR		
Q801	FU-NQS4KTC3199P	TRANSISTOR		
Q901	FU-QQSY02SA950F	TRANSISTOR		
Q902	FU-NQS4KTC3199P	TRANSISTOR		
Q903	FU-QQSY2SC2120F	TRANSISTOR		
Q904	FU-NQS4KTC3199P	TRANSISTOR		
Q905	FU-QQUF002SD400	TRANSISTOR		
Q906	FU-NQS4KTC3199P	TRANSISTOR		
Q907	FU-NQS4KTC3199P	TRANSISTOR		
D1001	FU-QDTZ001SS133	SI DIODE		
D1002	FU-QDTZ001SS133	SI DIODE		
D1003	FU-QDTZ001SS133	SI DIODE		
D1004	FU-QDTZ001SS133	SI DIODE		
D1005	FU-NDTB6R2BST26	ZENER DIODE		
D1006	FU-QDTZ001SS133	SI DIODE		
D1007	FU-QDTZ001SS133	SI DIODE		
D1008	FU-QDTZ001SS133	SI DIODE		
D1009	FU-QDTZ001SS133	SI DIODE		
D1010	FU-QDTZ001SS133	SI DIODE		
D1011	FU-QDTZ001SS133	SI DIODE		
D1012	FU-QDTZ001SS133	SI DIODE		
D1013	FU-QDTZ001SS133	SI DIODE		
D1014	FU-QDTZ001SS133	SI DIODE		
D1015	FU-QDTZ001SS133	SI DIODE		
D1016	FU-QDTZ001SS133	SI DIODE		
D1018	FU-NDTB010BST26	ZENER DIODE		
D1020	FU-NDTB5R1BST26	ZENER DIODE		

⚠Ref No.	Part No.	Part Name	Description	Local
D1021	FU-NDTB015BST26	ZENER DIODE		
D1022	FU-QDTZ001SS133	SI DIODE		
D1023	FU-QDTZ001SS133	SI DIODE		
D1024	FU-QDTZ001SS133	SI DIODE		
D1025	FU-QDTZ001SS133	SI DIODE		
D1026	FU-QDTZ001SS133	SI DIODE		
D1027	FU-QDTZ001SS133	SI DIODE		
⚠D1028	FU-NDTB4R7BST26	ZENER DIODE		
D1029	FU-NDTB016BST26	ZENER DIODE		
D1030	FU-NDTB016BST26	ZENER DIODE		
D1034	FU-NDTB9R1BST26	ZENER DIODE		
D1036	FU-QDTZ001SS133	SI DIODE		
D1039	FU-NDTB016BST26	ZENER DIODE		
D1040	FU-NDTB016BST26	ZENER DIODE		
D1045	FU-QDTZ001SS133	SI DIODE		
D201	FU-QDTZ001SS133	SI DIODE		
D202	FU-NSZBA0TJY036	IC		REGULATOR
D203	FU-QDTZ001SS133	SI DIODE		
D204	FU-QDTZ001SS133	SI DIODE		
D205	FU-NDTC024BST26	ZENER DIODE		
D206	FU-QDTZ001SS133	SI DIODE		
D207	FU-NDTA7R5BST26	ZENER DIODE		
D208	FU-QDTZ001SS133	SI DIODE		
D209	FU-QDTZ001SS133	SI DIODE		
D210	FU-QDTZ001SS133	SI DIODE		
D401	FU-NDLZ000FR104	DIODE		
D402	FU-NDTB010BST26	ZENER DIODE		
D404	FU-QDTZ001SS133	SI DIODE		
D405	FU-QDTZ001SS133	SI DIODE		
D406	FU-QDTZ001SS133	SI DIODE		
D407	FU-QDTZ001SS133	SI DIODE		
D408	FU-QDTZ001SS133	SI DIODE		
D409	FU-QDTZ001SS133	SI DIODE		
D410	FU-QDTZ001SS133	SI DIODE		
D411	FU-QDTZ001SS133	SI DIODE		
D412	FU-QDTZ001SS133	SI DIODE		
D413	FU-QDTZ001SS133	SI DIODE		
D414	FU-NDTB6R2BST26	ZENER DIODE		
D415	FU-QDTZ001SS133	SI DIODE		
D416	FU-NDTB010BST26	ZENER DIODE		
D417	FU-QDTZ001SS133	SI DIODE		
⚠D601	FU-NDL1001N5397	DIODE		
⚠D602	FU-NDL1001N5397	DIODE		
⚠D603	FU-NDL1001N5397	DIODE		
⚠D604	FU-NDL1001N5397	DIODE		
D605	FU-NDTB4R3BST26	ZENER DIODE		
⚠D606	FU-NDTB027BST26	ZENER DIODE		
⚠D607	FU-NDTB039BST26	ZENER DIODE		
⚠D608	FU-QDTZ001SS133	SI DIODE		
D610	FU-QDTZ001SS133	SI DIODE		
D631	FU-NDWZ0FR153BP	DIODE		
D632	FU-QDLZ030PHA20	SB DIODE		
⚠D633	FU-NDWZ0001ZB43	ZENER DIODE		
D636	FU-NDLZ000FR104	DIODE		
⚠D637	FU-NDTB036BST26	ZENER DIODE		
D638	FU-NDWZ000SB240	SB DIODE		
D639	FU-NDWZ000SB240	SB DIODE		
D640	FU-NDWZ000SB240	SB DIODE		
D641	FU-NDWZ000SB360	ZENER DIODE		
D642	FU-QDTZ001SS133	SI DIODE		
D643	FU-NDWZ000FR252	DIODE		
D645	FU-QDTZ001SS133	SI DIODE		
D646	FU-QDTZ001SS133	SI DIODE		
D648	FU-NDTB5R6BST26	ZENER DIODE		
⚠D649	FU-NDTB3R3BST26	ZENER DIODE		
D650	FU-NDTA6R8BST26	ZENER DIODE		
D651	FU-QDTZ001SS133	SI DIODE		
D653	FU-QDTZ001SS133	SI DIODE		
D654	FU-NDLZ000FR154	DIODE		
D655	FU-NDLZ000FR154	DIODE		
D656	FU-QDTZ001SS133	SI DIODE		
D657	FU-NDTB4R7BST26	ZENER DIODE		
D659	FU-NSZBA0TJY038	REGULATOR		
D662	FU-NSZBA0TJY036	IC		REGULATOR
D666	FU-NDTB010BST26	ZENER DIODE		
⚠D668	FU-NDTB020BST26	ZENER DIODE		
D670	FU-NDWZ000SB160	SB DIODE		
D804	FU-QDTZ001SS133	SI DIODE		
D805	FU-QDTZ001SS133	SI DIODE		
D808	FU-NDTB020BST26	ZENER DIODE		
D809	FU-NDTB020BST26	ZENER DIODE		
D901	FU-NDTC010BST26	ZENER DIODE		
D902	FU-NDQZ001N4005	SI DIODE		
D903	FU-NDQZ001N4005	SI DIODE		
D905	FU-NSZBA0TJY036	IC		REGULATOR
D906	FU-NDTB3R9BST26	ZENER DIODE		

⚠Ref No.	Part No.	Part Name	Description	Local
D907	FU-QDTZ001SS133	SI DIODE		
D908	FU-NDQZ001N4005	SI DIODE		
D909	FU-NDQZ001N4005	SI DIODE		
C1001	FU-CA1J222TU061	C CAPACITOR	2200pF 50V	
C1002	FU-CA2A223DT018	CAPACITOR	0.022uF 100V J	
C1003	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C1004	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C1005	FU-CA2A223DT018	CAPACITOR	0.022uF 100V J	
C1006	FU-CCE1000TE009	C CAPACITOR	10pF 6KV	
C1007	FU-CA1J222TU061	C CAPACITOR	2200pF 50V	
C1008	FU-CCE1000TE009	C CAPACITOR	10pF 6KV	
C1009	FU-CE1JMASDL100	E CAPACITOR	10uF 50V M	
C1010	FU-CE1JMASDL100	E CAPACITOR	10uF 50V M	
C1011	FU-CE1GMZPDL102	E CAPACITOR	1000uF 35V M	
C1012	FU-CCD2JKS0B221	C CAPACITOR	220pF 500V	
C1014	FU-CCE1000TE009	C CAPACITOR	10pF 6KV	
C1015	FU-CCE1000TE009	C CAPACITOR	10pF 6KV	
C1016	FU-CHD1JK30B682	C CAPACITOR	6800pF 50V	
C1018	FU-CHD1JK30B104	C CAPACITOR	0.1uF 50V	
C1019	FU-CCD2JKS0B221	C CAPACITOR	220pF 500V	
C1020	FU-CHD1JK30B104	C CAPACITOR	0.1uF 50V	
C1023	FU-CE1JMASDL100	E CAPACITOR	10uF 50V M	
C1024	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C1025	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C1026	FU-CHD1JK30B104	C CAPACITOR	0.1uF 50V	
C1027	FU-CE1JMASDL100	E CAPACITOR	10uF 50V M	
C1028	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C1031	FU-CA2A272DT018	CAPACITOR	0.0027uF 100V J	
C1032	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C1033	FU-CE1JMASDL100	E CAPACITOR	10uF 50V M	
C1034	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C1035	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C1037	FU-CHD1CK30B105	C CAPACITOR	1uF 16V	
C1038	FU-CHD1JK30B104	C CAPACITOR	0.1uF 50V	
C1039	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C1040	FU-CHD1JK30B102	C CAPACITOR	1000pF 50V K	
C1041	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C1042	FU-CHD1JZ30F224	C CAPACITOR	0.22uF 50V	
C1043	FU-CHD1CK30B224	C CAPACITOR	0.22uF 16V	
C1044	FU-CHD1JK30B104	C CAPACITOR	0.1uF 50V	
C1045	FU-CHD1JK30B104	C CAPACITOR	0.1uF 50V	
C1052	FU-CHD1JK30B104	C CAPACITOR	0.1uF 50V	
C1053	FU-CE1EMASSL101	E CAPACITOR	100uF 25V M	
C1054	FU-CHD1JK30B104	C CAPACITOR	0.1uF 50V	
C1056	FU-CHD1JK30B104	C CAPACITOR	0.1uF 50V	
C201	FU-CE1EMASDL471	E CAPACITOR	470uF 25V M	
C202	FU-CHD1JK30B103	C CAPACITOR	0.01uF 50V K	
C203	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C204	FU-CE1JMASDL100	E CAPACITOR	10uF 50V M	
C207	FU-CE1JMASDL100	E CAPACITOR	10uF 50V M	
C209	FU-CE1EMASDL470	E CAPACITOR	47uF 25V M	
C214	FU-CHD1JJ3CH102	C CAPACITOR	1000pF 50V J	
C215	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C216	FU-CHD1CK30B105	C CAPACITOR	1uF 16V	
C217	FU-CE1EMASDL470	E CAPACITOR	47uF 25V M	
C218	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C219	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C220	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C221	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C301	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C302	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C303	FU-CE1AMASDL331	E CAPACITOR	330uF 10V M	
C304	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C305	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C306	FU-CE1JMASDL220	E CAPACITOR	22uF 50V M	
C309	FU-CHD1JJ3CH102	C CAPACITOR	1000pF 50V J	
C310	FU-CHD1JJ3CH470	C CAPACITOR	47pF 50V J	
C311	FU-CHD1JJ3CH470	C CAPACITOR	47pF 50V J	
C401	FU-CE1JMASDL1R0	E CAPACITOR	1uF 50V M	
⚠C601	FU-CT2F474DC004	MF CAPACITOR	0.47uF 300V K	
C603	FU-CEA271DYG005	C CAPACITOR	270uF 200V	
C604	FU-CA2A393DT018	CAPACITOR	0.039uF 100V J	
C605	FU-CA2A122DT018	CAPACITOR	0.0012uF 100V J	
C606	FU-CA3D561PAN04	C CAPACITOR	560pF 2KV	
C607	FU-CA2A823DT018	CAPACITOR	0.082uF 100V J	
C608	FU-CA2A182DT018	CAPACITOR	0.0018uF 100V J	
C631	FU-CE1EMASDL471	E CAPACITOR	470uF 25V M	
C632	FU-CE1GMZPDL102	E CAPACITOR	1000uF 35V M	
C633	FU-CCD3AKN0B152	C CAPACITOR	1500pF 1KV	
⚠C636	FU-CE1EMASDL101	E CAPACITOR	100uF 25V M	
C638	FU-CE0KMZPDL222	E CAPACITOR	2200uF 6.3V M	
C639	FU-CE1AMZPDL222	E CAPACITOR	2200uF 10V M	
C640	FU-CE1AMASDL102	E CAPACITOR	1000uF 10V M	
C641	FU-CE1AMZPDL332	E CAPACITOR	3300uF 10V M	
C643	FU-CE1EMZPDL102	E CAPACITOR	1000uF 25V M	
C645	FU-CA2A222DT018	CAPACITOR	0.0022uF 100V J	
C646	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C647	FU-CE1AMAVSL101	E CAPACITOR	100uF 10V M	
C648	FU-CE1EMAVSL470	E CAPACITOR	47uF 25V M	
C649	FU-CE1AMAVSL221	E CAPACITOR	220uF 10V M	
C650	FU-CE1AMAVSL221	E CAPACITOR	220uF 10V M	
C652	FU-CE0KMASDL102	E CAPACITOR	1000uF 6.3V M	
C653	FU-CE1JMASDL220	E CAPACITOR	22uF 50V M	
C654	FU-CE1CMASDL101	E CAPACITOR	100uF 16V M	
C655	FU-CE1JMAVSL1R0	E CAPACITOR	1uF 50V M	
C656	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C661	FU-CE1JMASDL3R3	E CAPACITOR	3.3uF 50V M	
C681	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C682	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C683	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C684	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C685	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
⚠C691	FU-CA2E472MR101	C CAPACITOR	4700pF 250V	
⚠C692	FU-CA2E222MR101	CAPACITOR	2200pF 250V K	
C802	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C805	FU-CE1EMASDL331	E CAPACITOR	330uF 25V M	
C806	FU-CE1EMASDL331	E CAPACITOR	330uF 25V M	
C807	FU-CHD1EK30B223	C CAPACITOR	0.022uF 25V	
C808	FU-CHD1EK30B223	C CAPACITOR	0.022uF 25V	
C809	FU-CHD1CK30B105	C CAPACITOR	1uF 16V	
C810	FU-CHD1CK30B105	C CAPACITOR	1uF 16V	
C811	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C812	FU-CE1EMASDL471	E CAPACITOR	470uF 25V M	
C813	FU-CE1EMASDL101	E CAPACITOR	100uF 25V M	
C816	FU-CHD1JJ3CH102	C CAPACITOR	1000pF 50V J	
C817	FU-CHD1JJ3CH102	C CAPACITOR	1000pF 50V J	
C825	FU-CHD1CK30B105	C CAPACITOR	1uF 16V	
C826	FU-CHD1JJ3CH391	C CAPACITOR	390pF 50V	
C827	FU-CHD1CK30B105	C CAPACITOR	1uF 16V	
C828	FU-CHD1JJ3CH391	C CAPACITOR	390pF 50V	
C829	FU-CHD1JJ3CH102	C CAPACITOR	1000pF 50V J	
C830	FU-CHD1JJ3CH102	C CAPACITOR	1000pF 50V J	
C831	FU-CE1CMASDL101	E CAPACITOR	100uF 16V M	
C832	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C833	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C906	FU-CHD1JJ3CH391	C CAPACITOR	390pF 50V	
C907	FU-CHD1JJ3CH391	C CAPACITOR	390pF 50V	
C910	FU-CE1EMASDL470	E CAPACITOR	47uF 25V M	
C911	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C912	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C914	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C915	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C916	FU-CE0KMASDL102	E CAPACITOR	1000uF 6.3V M	
C917	FU-CE0KMASDL221	E CAPACITOR	220uF 6.3V M	
C918	FU-CE1AMASDL101	E CAPACITOR	100uF 10V M	
C919	FU-CE1JMASDL220	E CAPACITOR	22uF 50V M	
C920	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C922	FU-CHD1CK30B105	C CAPACITOR	1uF 16V	
C923	FU-CHD1JJ3CH271	C CAPACITOR	270pF 50V	
C924	FU-CHD1CK30B105	C CAPACITOR	1uF 16V	
C925	FU-CHD1JJ3CH271	C CAPACITOR	270pF 50V	
C926	FU-CHD1JJ3CH102	C CAPACITOR	1000pF 50V J	
C927	FU-CHD1JJ3CH102	C CAPACITOR	1000pF 50V J	
C928	FU-CE1CMASDL101	E CAPACITOR	100uF 16V M	
C929	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
R1001	FU-RCX4222T1001	C RESISTOR	2.2kΩ 1/4W J	
R1002	FU-RCX4181T1001	C RESISTOR	180Ω 1/4W J	
R1003	FU-RCX4222T1001	C RESISTOR	2.2kΩ 1/4W J	
R1004	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R1005	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J	
R1006	FU-RCX4181T1001	C RESISTOR	180Ω 1/4W J	
R1007	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J	
R1008	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J	
R1010	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J	
R1011	FU-RRXAJR5Z0123	MG RESISTOR	12kΩ 1/10W J	
R1012	FU-RCX4273T1001	C RESISTOR	27kΩ 1/4W J	
R1013	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J	
R1014	FU-RCX4273T1001	C RESISTOR	27kΩ 1/4W J	
R1015	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R1017	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J	
R1018	FU-RRXAJR5Z0391	MG RESISTOR	390Ω 1/10W J	
R1019	FU-RRXAJR5Z0391	MG RESISTOR	390Ω 1/10W J	
R1020	FU-RRXAJR5Z0102	MG RESISTOR	1kΩ 1/10W J	
R1022	FU-RRXAJR5Z0333	MG RESISTOR	33kΩ 1/10W J	
R1023	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R1024	FU-RRXAFR5H2202	MG RESISTOR	22kΩ 1/10W F	
R1025	FU-RRXAJR5Z0152	MG RESISTOR	1.5kΩ 1/10W J	
R1026	FU-RCX4222T1001	C RESISTOR	2.2kΩ 1/4W J	
R1027	FU-RRXAJR5Z0512	MG RESISTOR	5.1kΩ 1/10W J	
R1028	FU-RRXAJR5Z0102	MG RESISTOR	1kΩ 1/10W J	
R1029	FU-RCX4182T1001	C RESISTOR	1.8KΩ 1/4W J	
R1030	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J	
R1031	FU-RCX4472T1001	C RESISTOR	4.7kΩ 1/4W J	
⚠R1032	FU-RN02R33ZU001	OMF RESISTOR	0.33Ω 2W J	
R1035	FU-RRXAFR5H1001	MG RESISTOR	1kΩ 1/10W F	
R1036	FU-RRXAFR5H1502	MG RESISTOR	15kΩ 1/10W F	

⚠Ref No.	Part No.	Part Name	Description Local
R1037	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W
R1038	FU-RRXAJR5Z0244	MG RESISTOR	240kΩ 1/10W J
R1039	FU-RRXAFR5H6802	MG RESISTOR	68kΩ 1/10W F
R1040	FU-RRXAFR5H6201	MG RESISTOR	6.2kΩ 1/10W F
R1041	FU-RRXAFR5H1001	MG RESISTOR	1kΩ 1/10W F
R1042	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J
R1043	FU-RRXAFR5H5101	MG RESISTOR	5.1kΩ 1/10W F
R1044	FU-RCX4512T1002	C RESISTOR	5.1kΩ 1/4W G
R1045	FU-RRXAJR5Z0244	MG RESISTOR	240kΩ 1/10W J
R1046	FU-RRXAJR5Z0243	MG RESISTOR	24kΩ 1/10W J
R1048	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J
R1049	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J
R1052	FU-RRXAFR5H1003	MG RESISTOR	100kΩ 1/10W F
R1054	FU-RRXAFR5H5601	MG RESISTOR	5.6kΩ 1/10W F
R1055	FU-RRXAFR5H1003	MG RESISTOR	100kΩ 1/10W F
R1056	FU-RRXAFR5H1003	MG RESISTOR	100kΩ 1/10W F
R1058	FU-RRXAFR5H1002	MG RESISTOR	10kΩ 1/10W F
R1059	FU-RRXAFR5H1002	MG RESISTOR	10kΩ 1/10W F
R1060	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
R1061	FU-RRXAJR5Z0333	MG RESISTOR	33kΩ 1/10W J
R1065	FU-RCX4272T1001	C RESISTOR	2.7KΩ 1/4W J
R1066	FU-RCX4272T1001	C RESISTOR	2.7KΩ 1/4W J
R1067	FU-RRXAJR5Z0102	MG RESISTOR	1kΩ 1/10W J
R1068	FU-RRXAJR5Z0102	MG RESISTOR	1kΩ 1/10W J
R1069	FU-RRXAJR5Z0102	MG RESISTOR	1kΩ 1/10W J
R1070	FU-RRXAJR5Z0102	MG RESISTOR	1kΩ 1/10W J
R1071	FU-RRXAFR5H4301	MG RESISTOR	4.3kΩ 1/10W F
R1072	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W
R1073	FU-RRXAFR5H1201	MG RESISTOR	1.2kΩ 1/10W F
R1074	FU-RCX4104T1001	C RESISTOR	100kΩ 1/4W J
R1081	FU-RRXAFR5H1003	MG RESISTOR	100kΩ 1/10W F
R1082	FU-RRXAFR5H6802	MG RESISTOR	68kΩ 1/10W F
R1083	FU-RRXAFR5H1004	MG RESISTOR	1MΩ 1/10W F
R1084	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J
R1086	FU-RRXAFR5H1003	MG RESISTOR	100kΩ 1/10W F
R1087	FU-RRXAFR5H6802	MG RESISTOR	68kΩ 1/10W F
R1088	FU-RRXAFR5H1004	MG RESISTOR	1MΩ 1/10W F
R1089	FU-RRXAFR5H1202	MG RESISTOR	12kΩ 1/10W F
R1090	FU-RRXAFR5H4702	MG RESISTOR	47kΩ 1/10W F
R1091	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J
R1092	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J
R1093	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J
R1094	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J
R1095	FU-RCX4122T1001	C RESISTOR	1.2KΩ 1/4W J
R1099	FU-RRXAJR5Z0102	MG RESISTOR	1kΩ 1/10W J
R1101	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J
R1102	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J
R1103	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J
R1104	FU-RRXAJR5Z0123	MG RESISTOR	12kΩ 1/10W J
R1105	FU-RRXAJR5Z0332	MG RESISTOR	3.3kΩ 1/10W J
R1106	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
R1107	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
R1109	FU-RRXAFR5H2201	MG RESISTOR	2.2kΩ 1/10W F
R1110	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
R1111	FU-RCX4103T1001	C RESISTOR	10KΩ 1/4W J
R1112	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W
R1118	FU-RCX41R2T1001	C RESISTOR	1.2Ω 1/4W J
R171	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J
R172	FU-RCX4223T1001	C RESISTOR	22kΩ 1/4W J
R175	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J
R201	FU-RN015R6ZU001	O.M.F.RESISTOR	5.6Ω 1W J
R202	FU-RRXAFR5H9101	MG RESISTOR	9.1kΩ 1/10W F
R203	FU-RRXAFR5H5100	MG RESISTOR	510Ω 1/10W F
R204	FU-RRXAFR5H2201	MG RESISTOR	2.2kΩ 1/10W F
R205	FU-RRXAJR5Z0152	MG RESISTOR	1.5kΩ 1/10W J
R206	FU-RRXAJR5Z0473	MG RESISTOR	47kΩ 1/10W J
R207	FU-RCX4682T1001	C RESISTOR	6.8kΩ 1/4W J
R208	FU-RCX4682T1001	C RESISTOR	6.8kΩ 1/4W J
R209	FU-RRXAJR5Z0563	MG RESISTOR	56kΩ 1/10W J
R210	FU-RRXAJR5Z0682	MG RESISTOR	6.8kΩ 1/10W J
R211	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
R212	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J
R213	FU-RRXAJR5Z0273	MG RESISTOR	27kΩ 1/10W J
R214	FU-RRXAJR5Z0332	MG RESISTOR	3.3kΩ 1/10W J
R215	FU-RCX4331T1001	C RESISTOR	330Ω 1/4W J
R216	FU-RCX4272T1001	C RESISTOR	2.7KΩ 1/4W J
R217	FU-RCX4272T1001	C RESISTOR	2.7KΩ 1/4W J
R218	FU-RCX4822T1001	C RESISTOR	8.2KΩ 1/4W J
R219	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J
R220	FU-RRXAJR5Z0473	MG RESISTOR	47kΩ 1/10W J
R221	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J
R222	FU-RCX4121T1001	C RESISTOR	120Ω 1/4W J
R223	FU-RCX4153T1001	C RESISTOR	15kΩ 1/4W J
R224	FU-RRXAJR5Z01R0	MG RESISTOR	1Ω 1/10W J
R225	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W
R226	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J
R227	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J
R229	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J
R230	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J

⚠Ref No.	Part No.	Part Name	Description Local
R231	FU-RRXAJR5Z0152	MG RESISTOR	1.5kΩ 1/10W J
R232	FU-RRXAJR5Z0153	MG RESISTOR	15kΩ 1/10W J
R233	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
R234	FU-RRXAJR5Z0102	MG RESISTOR	1kΩ 1/10W J
R238	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W
R239	FU-RCX4151T1001	C RESISTOR	150Ω 1/4W J
R240	FU-RCX4392T1001	C RESISTOR	3.9kΩ 1/4W J
R302	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W
R303	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W
R304	FU-RRXAJR5Z0820	MG RESISTOR	82Ω 1/10W J
R305	FU-RRXAJR5Z0820	MG RESISTOR	82Ω 1/10W J
R313	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W
⚠R401	FU-RRXAJR5Z01R0	MG RESISTOR	1Ω 1/10W J
R402	FU-RRXAFR5H5601	MG RESISTOR	5.6kΩ 1/10W F
R403	FU-RRXAFR5H3602	MG RESISTOR	36kΩ 1/10W F
R406	FU-RCX4473T1001	C RESISTOR	47kΩ 1/4W J
R407	FU-RRXAJR5Z0473	MG RESISTOR	47kΩ 1/10W J
R408	FU-RRXAJR5Z0473	MG RESISTOR	47kΩ 1/10W J
R409	FU-RRXAJR5Z0222	MG RESISTOR	2.2kΩ 1/10W J
R411	FU-RCX4223T1001	C RESISTOR	22kΩ 1/4W J
R412	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J
R413	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J
⚠R601	FU-RXX2JZLZ0105	RESISTOR	1MΩ 1/2W J
R602	FU-RW031R2PG007	UNF WW RESISTOR	1.2Ω 3W
R603	FU-RCX4564T1001	C RESISTOR	560kΩ 1/4W J
R604	FU-RCX4564T1001	C RESISTOR	560kΩ 1/4W J
R605	FU-RCX4394T1001	C RESISTOR	390kΩ 1/4W J
R607	FU-RCX4151T1001	C RESISTOR	150Ω 1/4W J
R608	FU-RCX4151T1001	C RESISTOR	150Ω 1/4W J
R609	FU-RCX4152T1001	C RESISTOR	1.5kΩ 1/4W J
⚠R610	FU-RN02R39ZU001	O.M.F.RESISTOR	0.39Ω 2W J
R611	FU-RCX4222T1001	C RESISTOR	2.2kΩ 1/4W J
R612	FU-RCX4221T1001	C RESISTOR	220Ω 1/4W J
R631	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J
R632	FU-RRXADR5H1101	MG RESISTOR	1.1KΩ 1/10W D
R633	FU-RRXADR5H1002	MG RESISTOR	10KΩ 1/10W D
R634	FU-RCX4123T1001	C RESISTOR	12kΩ 1/4W J
R635	FU-RCX4221T1001	C RESISTOR	220Ω 1/4W J
R637	FU-RCX4121T1001	C RESISTOR	120Ω 1/4W J
R638	FU-RCX4272T1001	C RESISTOR	2.7KΩ 1/4W J
R639	FU-RRXAFR5H8200	MG RESISTOR	820Ω 1/10W F
R640	FU-RRXAFR5H1802	MG RESISTOR	18kΩ 1/10W F
R641	FU-RRXAFR5H1200	MG RESISTOR	120Ω 1/10W F
R642	FU-RRXAFR5H2202	MG RESISTOR	22kΩ 1/10W F
R643	FU-RRXAFR5H2202	MG RESISTOR	22kΩ 1/10W F
R644	FU-RRXAFR5H2202	MG RESISTOR	22kΩ 1/10W F
R645	FU-RRXAFR5H7501	MG RESISTOR	7.5kΩ 1/10W F
R646	FU-RRXAFR5H8200	MG RESISTOR	820Ω 1/10W F
R647	FU-RRXAJR5Z0473	MG RESISTOR	47kΩ 1/10W J
R648	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
⚠R649	FU-RCX4681T1001	C RESISTOR	680Ω 1/4W J
R650	FU-RCX4681T1001	C RESISTOR	680Ω 1/4W J
⚠R651	FU-RCX4150T1001	C RESISTOR	15Ω 1/4W J
R653	FU-RRXAFR5H8200	MG RESISTOR	820Ω 1/10W F
R654	FU-RRXAFR5H8200	MG RESISTOR	820Ω 1/10W F
R656	FU-RCX4681T1001	C RESISTOR	680Ω 1/4W J
R658	FU-RCX4272T1001	C RESISTOR	2.7KΩ 1/4W J
R659	FU-RCX22R7T1003	C RESISTOR	2.7Ω 1/2W J
R660	FU-RRXADR5H1002	MG RESISTOR	10KΩ 1/10W D
R661	FU-RCX4681T1001	C RESISTOR	680Ω 1/4W J
R662	FU-RCX4390T1001	C RESISTOR	39Ω 1/4W J
R663	FU-RCX43R3T1001	C RESISTOR	3.3Ω 1/4W J
R664	FU-RCX43R9T1001	C RESISTOR	3.9Ω 1/4W J
R665	FU-RCX43R9T1001	C RESISTOR	3.9Ω 1/4W J
R666	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J
R667	FU-RRXAJR5Z0102	MG RESISTOR	1kΩ 1/10W J
R668	FU-RRXAJR5Z0223	MG RESISTOR	22kΩ 1/10W J
R669	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
R670	FU-RCX4271T1001	C RESISTOR	270Ω 1/4W J
R671	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J
R672	FU-RN01R47ZU001	O.M.F.RESISTOR	0.47Ω 1W J
R673	FU-RRXAFR5H3301	MG RESISTOR	3.3kΩ 1/10W F
R674	FU-RRXAFR5H1002	MG RESISTOR	10kΩ 1/10W F
R675	FU-RCX4102T1001	C RESISTOR	1.0kΩ 1/4W J
R676	FU-RCX4220T1001	C RESISTOR	22Ω 1/4W J
R677	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
R678	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
R679	FU-RCX4103T1001	C RESISTOR	10KΩ 1/4W J
R681	FU-RRXAFR5H8200	MG RESISTOR	820Ω 1/10W F
R683	FU-RN013R3ZU001	O.M.F.RESISTOR	3.3Ω 1W J
R684	FU-RN013R3ZU001	O.M.F.RESISTOR	3.3Ω 1W J
R685	FU-RRXAFR5H6200	MG RESISTOR	620Ω 1/10W F
R686	FU-RRXAFR5H1001	MG RESISTOR	1kΩ 1/10W F
R688	FU-RCX41R0T1001	C RESISTOR	1.0Ω 1/4W J
R689	FU-RCX4330T1001	C RESISTOR	33Ω 1/4W J
R690	FU-RCX43R3T1001	C RESISTOR	3.3Ω 1/4W J
R699	FU-RCX4560T1001	C RESISTOR	56Ω 1/4W J
R803	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J
R804	FU-RRXAJR5Z08R2	MG RESISTOR	8.2Ω 1/10W J

⚠Ref No.	Part No.	Part Name	Description	Local
R805	FU-RRXAJR5Z08R2	MG RESISTOR	8.2Ω 1/10W J	
R808	FU-RRXAJR5Z0472	MG RESISTOR	4.7kΩ 1/10W J	
R809	FU-RRXAJR5Z0361	MG RESISTOR	360Ω 1/10W J	
R810	FU-RRXAJR5Z0562	MG RESISTOR	5.6kΩ 1/10W J	
R811	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R813	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R814	FU-RRXAJR5Z0562	MG RESISTOR	5.6kΩ 1/10W J	
R815	FU-RRXAJR5Z0471	MG RESISTOR	470Ω 1/10W J	
R816	FU-RRXAJR5Z0471	MG RESISTOR	470Ω 1/10W J	
R817	FU-RRXAJR5Z0183	MG RESISTOR	18kΩ 1/10W J	
R818	FU-RRXAJR5Z0153	MG RESISTOR	15kΩ 1/10W J	
R819	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R820	FU-RRXAJR5Z0472	MG RESISTOR	4.7kΩ 1/10W J	
R821	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R823	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R826	FU-RCX4103T1001	C RESISTOR	10KΩ 1/4W J	
R830	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R834	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R836	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R837	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R838	FU-RCX4103T1001	C RESISTOR	10KΩ 1/4W J	
R842	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R904	FU-RCX4103T1001	C RESISTOR	10KΩ 1/4W J	
R905	FU-RCX4103T1001	C RESISTOR	10KΩ 1/4W J	
R906	FU-RCX4561T1001	C RESISTOR	560Ω 1/4W J	
R907	FU-RRXAJR5Z0222	MG RESISTOR	2.2kΩ 1/10W J	
R908	FU-RRXAJR5Z0222	MG RESISTOR	2.2kΩ 1/10W J	
R909	FU-RRXAJR5Z0101	MG RESISTOR	100Ω 1/10W J	
R910	FU-RRXAR30HH007	MG RESISTOR	0.30Ω 1/10W J	
R911	FU-RRXAR30HH007	MG RESISTOR	0.30Ω 1/10W J	
R912	FU-RCX4102T1001	C RESISTOR	1.0kΩ 1/4W J	
R913	FU-RCX23R9T1003	C RESISTOR	3.9Ω 1/2W J	
R914	FU-RCX23R9T1003	C RESISTOR	3.9Ω 1/2W J	
R915	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R916	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R917	FU-RCX4391T1001	C RESISTOR	390Ω 1/4W J	
R918	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R919	FU-RCX4151T1001	C RESISTOR	150Ω 1/4W J	
R920	FU-RRXAFR5H3301	MG RESISTOR	3.3kΩ 1/10W F	
R921	FU-RRXAFR5H1002	MG RESISTOR	10kΩ 1/10W F	
R922	FU-RCX4220T1001	C RESISTOR	22Ω 1/4W J	
R923	FU-RCX4221T1001	C RESISTOR	220Ω 1/4W J	
R924	FU-RCX45R6T1001	C RESISTOR	5.6Ω 1/4W J	
R925	FU-RCX45R6T1001	C RESISTOR	5.6Ω 1/4W J	
R926	FU-RCX4471T1001	C RESISTOR	470Ω 1/4W J	
R927	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J	
R928	FU-RCX4181T1001	C RESISTOR	180Ω 1/4W J	
R929	FU-RCX41R2T1001	C RESISTOR	1.2Ω 1/4W J	
R930	FU-RN026R8ZU001	O.M.F.RESISTOR	6.8Ω 2W J	
R931	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R933	FU-RCX4104T1001	C RESISTOR	100kΩ 1/4W J	
R935	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R936	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R940	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R941	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R942	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R943	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
L13	FU-GBJB3080	SCREW		
L301	FU-LLBF00STU030	INDUCTOR		
L302	FU-LLACKB3TUR22	INDUCTOR		
L303	FU-LLACKB3TUR22	INDUCTOR		
⚠L601	FU-LLBG00ZKT004	LINE FILTER		
⚠T1002	FU-LTZ3PZ0XB014	INVERTER TRANS		
⚠T601	FU-LTT2PC0XB044	POWER TRANS		
⚠AC601	FU-WAC0172LW008	POWER CORD		
B12	FU-1EM423968	HEAT SINK		
B13	FU-1EM324377	HEAT SINK		
B14	FU-1EM423993	HEAT SINK		
BC301	FU-LLC601NTU017	INDUCTOR		
BC601	FU-LLBF00STU030	INDUCTOR		
BC801	FU-LLC601NTU017	INDUCTOR		
BC901	FU-LLC601NTU017	INDUCTOR		
BC902	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
⚠CN1001	FU-JB17D02AP001	CONNECTOR		
⚠CN1002	FU-JB17D02AP001	CONNECTOR		
CN102	FU-J322C08TG001	CONNECTOR		
CN201	FU-JC96J11ER007	FFC CONNECTOR		
CN301	FU-JC96J29ER007	FFC CONNECTOR		
CN302	FU-JC96J29ER007	FFC CONNECTOR		
CN303	FU-JC96J29ER007	FFC CONNECTOR		
CN702	FU-JC96J29ER007	FFC CONNECTOR		
CN862A	FU-J322C04TG001	CONNECTOR		
CN901	FU-JC96J26ER007	FFC CONNECTOR		
CN902	FU-JC62G13UG026	CONNECTOR		
⚠F601	FU-PAGE20CW3402	FUSE	125V 4A	
FH601	FU-XH01Z00LY002	FUSE HOLDER		
FH602	FU-XH01Z00LY002	FUSE HOLDER		

⚠Ref No.	Part No.	Part Name	Description	Local
JS304	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
JS801	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
JS802	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
JS803	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
JS804	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
⚠SA601	FU-NVQZ10D471KB	SURGE ABSORBER		
TM601	FU-0VM406868	EYELET		
TM602	FU-0VM406868	EYELET		
TU302	FU-UTUNNTUAL052	TUNER UNIT		

JACK P.W. BOARD ASS'Y (FU-1ESA20948-1)

⚠Ref No.	Part No.	Part Name	Description	Local
IC771	FU-QSZBA0TTS162	IC	SWITCHING	
Q722	FU-NQS4KTC3199P	TRANSISTOR		
Q771	FU-NQS4KTC3199P	TRANSISTOR		
Q773	FU-NQS4KTC3199P	TRANSISTOR		
Q774	FU-NQS4KTC3199P	TRANSISTOR		
Q841	FU-NQS4KTC3199P	TRANSISTOR		
C703	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C704	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C723	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C724	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C731	FU-CHD1JJ3CH390	C CAPACITOR	39pF 50V J	
C732	FU-CHD1JJ3CH390	C CAPACITOR	39pF 50V J	
C733	FU-CHD1JJ3CH390	C CAPACITOR	39pF 50V J	
C734	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
C735	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
C736	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
C743	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C744	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C751	FU-CHD1JJ3CH101	C CAPACITOR	100pF 50V J	
C752	FU-CHD1JJ3CH101	C CAPACITOR	100pF 50V J	
C753	FU-CHD1JJ3CH101	C CAPACITOR	100pF 50V J	
C754	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
C755	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
C756	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	
C757	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C758	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C771	FU-CE1CMAVSL101	E CAPACITOR	100uF 16V	
C772	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C773	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C775	FU-CHD1JJ3CH330	C CAPACITOR	33pF 50V	
C776	FU-CHD1JJ3CH330	C CAPACITOR	33pF 50V	
C841	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C842	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C843	FU-CHD1JZ30F104	C CAPACITOR	0.1uF 50V	
C845	FU-CHD1JJ3CH330	C CAPACITOR	33pF 50V	
R711	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R712	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R717	FU-RRXAJR5Z0563	MG RESISTOR	56kΩ 1/10W J	
R718	FU-RRXAJR5Z0563	MG RESISTOR	56kΩ 1/10W J	
R721	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R722	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R727	FU-RRXAJR5Z0563	MG RESISTOR	56kΩ 1/10W J	
R728	FU-RRXAJR5Z0563	MG RESISTOR	56kΩ 1/10W J	
R731	FU-RRXAFR5H75R0	MG RESISTOR	75Ω 1/10W F	
R732	FU-RRXAFR5H75R0	MG RESISTOR	75Ω 1/10W F	
R733	FU-RRXAFR5H75R0	MG RESISTOR	75Ω 1/10W F	
R734	FU-RRXAJR5Z0100	MG RESISTOR	10Ω 1/10W J	
R735	FU-RRXAJR5Z0100	MG RESISTOR	10Ω 1/10W J	
R736	FU-RRXAJR5Z0100	MG RESISTOR	10Ω 1/10W J	
R741	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R742	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R747	FU-RRXAJR5Z0563	MG RESISTOR	56kΩ 1/10W J	
R748	FU-RRXAJR5Z0563	MG RESISTOR	56kΩ 1/10W J	
R751	FU-RRXAJR5Z0750	MG RESISTOR	75Ω 1/10W J	
R752	FU-RRXAJR5Z0750	MG RESISTOR	75Ω 1/10W J	
R753	FU-RRXAJR5Z0750	MG RESISTOR	75Ω 1/10W J	
R754	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R755	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R756	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J	
R757	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J	
R758	FU-RCX4100T1001	C RESISTOR	10Ω 1/4W J	
R763	FU-RCX4563T1001	C RESISTOR	56KΩ 1/4W J	
R764	FU-RRXAJR5Z0563	MG RESISTOR	56kΩ 1/10W J	
R772	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R773	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R774	FU-RCX4103T1001	C RESISTOR	10KΩ 1/4W J	
R775	FU-RCX4103T1001	C RESISTOR	10KΩ 1/4W J	
R780	FU-RRXAJR5Z0823	MG RESISTOR	82kΩ 1/10W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R781	FU-RRXAJR5Z0823	MG RESISTOR	82kΩ 1/10W J	
R782	FU-RCX4823T1001	C RESISTOR	82kΩ 1/4W J	
R783	FU-RRXAJR5Z0823	MG RESISTOR	82kΩ 1/10W J	
R784	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R785	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R786	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R787	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R788	FU-RCX4823T1001	C RESISTOR	82kΩ 1/4W J	
R789	FU-RCX4823T1001	C RESISTOR	82kΩ 1/4W J	
R790	FU-RRXAJR5Z0823	MG RESISTOR	82kΩ 1/10W J	
R791	FU-RRXAJR5Z0823	MG RESISTOR	82kΩ 1/10W J	
R792	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R793	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R794	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R795	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R796	FU-RRXAJR5Z0222	MG RESISTOR	2.2kΩ 1/10W J	
R797	FU-RRXAJR5Z0222	MG RESISTOR	2.2kΩ 1/10W J	
R843	FU-RRXAJR5Z0111	MG RESISTOR	110Ω 1/10W J	
R844	FU-RRXAJR5Z0221	MG RESISTOR	220Ω 1/10W J	
R845	FU-RRXAJR5Z0104	MG RESISTOR	100kΩ 1/10W J	
R846	FU-RRXAJR5Z0101	MG RESISTOR	100Ω 1/10W J	
R847	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R848	FU-RRXAJR5Z0103	MG RESISTOR	10kΩ 1/10W J	
R851	FU-RCX4181T1001	C RESISTOR	180Ω 1/4W J	
R852	FU-RCX4181T1001	C RESISTOR	180Ω 1/4W J	
BC771	FU-LLBF00STU030	INDUCTOR		
BC841	FU-LLC601NTU017	INDUCTOR		
CN701	FU-JC96J29ER007	FFC CONNECTOR		
CN861A	FU-J322C04TG001	CONNECTOR		
JK711	FU-JXSJ020YUQ01	MINI JACK	PC-AUDIO-IN	
JK721	FU-JXRJ010YUQ02	PIN JACK	HDMI-AUDIO(L)-IN	
JK722	FU-JXRJ010YUQ01	PIN JACK	HDMI-AUDIO(R)-IN	
JK731	FU-JXRJ010YUQ03	PIN JACK	COMPONENT-Y-IN	
JK732	FU-JXRJ010YUQ04	PIN JACK	COMPONENT-Pb-IN	
JK733	FU-JXRJ010YUQ01	PIN JACK	COMPONENT-Pr-IN	
JK741	FU-JXRJ010YUQ02	PIN JACK	COMPONENT-AUDIO(L)-IN	
JK742	FU-JXRJ010YUQ01	PIN JACK	COMPONENT-AUDIO(R)-IN	
JK751	FU-JYEL040YUQ03	JACK	S-VIDEO-IN	
JK752	FU-JXRL010YUQ12	JACK	VIDEO-IN	
JK753	FU-JXRL010YUQ13	JACK	AUDIO(L)-IN	
JK754	FU-JYRL010YUQ05	JACK	AUDIO(R)-IN	
JK841	FU-JXRJ010YUQ06	RCA JACK	DIGITAL AUDIO OUT	
JK851	FU-JYSL010YUQ03	JACK	HEADPHONE	
JS701	FU-RRXAZR5Z0000	MG RESISTOR	0Ω 1/10W	

FUNCTION P.W. BOARD ASS'Y (FU-1ESA20948-2)

⚠Ref No.	Part No.	Part Name	Description	Local
D103	FU-NP4Z000L53HT	LED	STAND BY	
D104	FU-NPQ3L1CHCBK2	LED	POWER	
D950	FU-NPWZ0LTL307Y	LED	DVD	
C103	FU-CE1CMAVSL470	E CAPACITOR	47uF 16V M	
C104	FU-CHD1JK30B331	C CAPACITOR	330pF 50V	
C107	FU-CHD1CZ30F105	C CAPACITOR	1uF 16V	
C108	FU-CA1J104TU062	C CAPACITOR	0.1uF 50V	
C109	FU-CA1J104TU062	C CAPACITOR	0.1uF 50V	
C951	FU-CA1J104TU062	C CAPACITOR	0.1uF 50V	
R106	FU-RCX4101T1001	C RESISTOR	100Ω 1/4W J	
R107	FU-RRXAJR5Z0332	MG RESISTOR	3.3kΩ 1/10W J	
R108	FU-RRXAJR5Z0221	MG RESISTOR	220Ω 1/10W J	
R109	FU-RRXAJR5Z0152	MG RESISTOR	1kΩ 1/10W J	
R110	FU-RRXAJR5Z0102	MG RESISTOR	1kΩ 1/10W J	
R111	FU-RRXAFR5H1802	MG RESISTOR	18kΩ 1/10W F	
R112	FU-RRXAFR5H8201	MG RESISTOR	8.2kΩ 1/10W F	
R113	FU-RRXAFR5H0472	MG RESISTOR	4.7kΩ 1/10W F	
R114	FU-RRXAFR5H2701	MG RESISTOR	2.7kΩ 1/10W F	
R115	FU-RRXAFR5H0472	MG RESISTOR	4.7kΩ 1/10W F	
R116	FU-RCX4221T1001	C RESISTOR	220Ω 1/4W J	
R118	FU-RRXAFR5H1002	MG RESISTOR	10kΩ 1/10W F	
R950	FU-RCX4221T1001	C RESISTOR	220Ω 1/4W J	
R952	FU-RRXAFR5H2201	MG RESISTOR	2.2kΩ 1/10W F	
R953	FU-RRXAFR5H2201	MG RESISTOR	2.2kΩ 1/10W F	
R956	FU-RRXAFR5H1002	MG RESISTOR	10kΩ 1/10W F	
RS101	FU-USESJRSKK046	REMOTE SENSOR		
SW104	FU-SST0101AL049	TACT SWITCH	VOL-	
SW105	FU-SST0101AL049	TACT SWITCH	VOL+	
SW106	FU-SST0101AL049	TACT SWITCH	MENU	
SW107	FU-SST0101AL049	TACT SWITCH	CH-	
SW108	FU-SST0101AL049	TACT SWITCH	CH+	
SW109	FU-SST0101AL049	TACT SWITCH	POWER	
SW951	FU-SST0101AL049	TACT SWITCH	PLAY	
SW952	FU-SST0101AL049	TACT SWITCH	STOP	
SW953	FU-SST0101AL049	TACT SWITCH	EJECT	

JUNCTION-A P.W. BOARD ASS'Y (FU-1ESA20948-3)

⚠Ref No.	Part No.	Part Name	Description	Local
CL101	FU-WX1A94N0-001	WIRE ASSY		
CN101	FU-JCTUB08TG002	CONNECTOR		

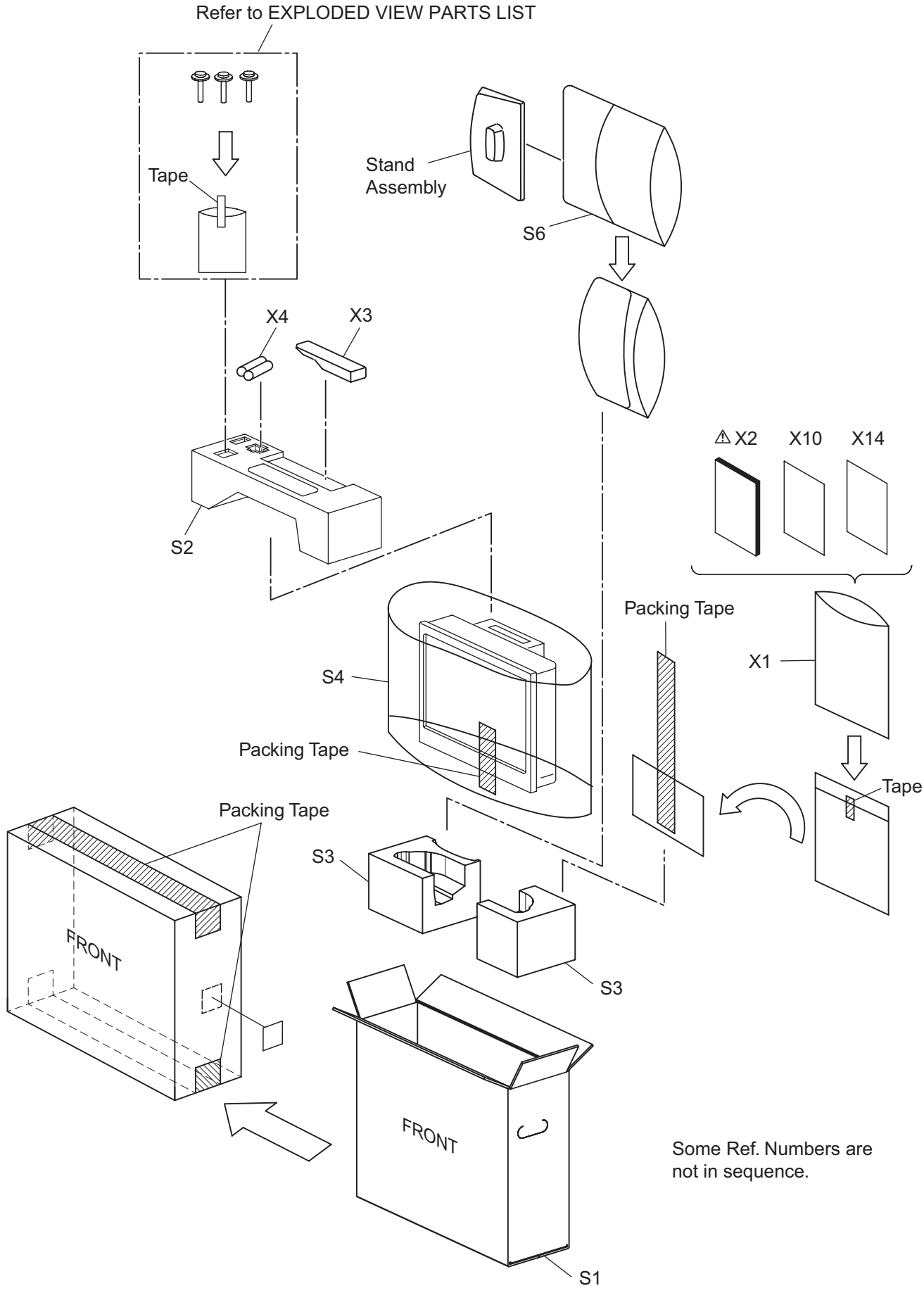
JUNCTION-B P.W. BOARD ASS'Y (FU-1ESA20948-4)

⚠Ref No.	Part No.	Part Name	Description	Local
CL862	FU-WX1A94N0-002	WIRE ASSY		
CN862B	FU-JCTUB04TG002	CONNECTOR		

JUNCTION-C P.W. BOARD ASS'Y (FU-1ESA20948-5)

⚠Ref No.	Part No.	Part Name	Description	Local
CL861	FU-WX1A94N0-002	WIRE ASSY		
CN861B	FU-JCTUB04TG002	CONNECTOR		

PACKING



Some Ref. Numbers are not in sequence.

PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	S 1	FU-1EM429199	PACKING CASE		
	S 2	FU-1EM023965	TOP CUSHION		
	S 3	FU-1EM023966	BOTTOM CUSHION	2pcs in 1set	
	S 4	FU-1EM323958	SET BAG		
	S 6	FU-1EM425888	STAND BAG		
	X 1	FU-0EM408420A	POLY BAG		
⚠	X 2	FU-1EMN24939	INST BOOK	French/Spanish/English	
	X 3	FU-NF902UD	REMOTE CONTROL		
	X 4	----------	DRY BATTERY	R6P/AA	
	X 10	FU-1EMN24179	REGISTRATION CARD		
	X 14	----------	WARRANTY CARD(CANADA)	FU-1EMN24899	

JVC

SCHEMATIC DIAGRAMS

LCD TELEVISION BUILT-IN DVD PLAYER

LT-19D200/AK

DVD-ROM No.SML2009Q1

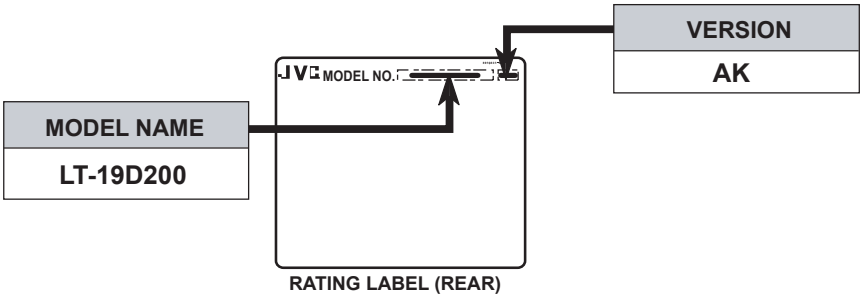
HDTV HIGH DEFINITION TELEVISION

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

DOLBY DIGITAL

ENERGY STAR

There may be multiple versions of this TV model.
The TV version is identified by the letters next to the model number on the TV's Rating.
(See illustration).
Use the service manual that matches the version of the TV.



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No.YA711<Rev.001>
2009/5

LT-19D200/AK

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety ciritical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Colour bar signal
(2)Setting positions of each knob/button and variable resistor	: Original setting position when shipped
(3)Internal resistance of tester	: DC 20kΩ/V
(4)Oscilloscope sweeping time	: H ⇒ 20μs / div
	: V ⇒ 5ms / div
	: Othters ⇒ Sweeping time is specified
(5)Voltage values	: All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R1209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	: [Ω]
K	: [kΩ]
M	: [MΩ]

● Rated allowable power

No indication	: 1/16 [W]
Others	: As specified

● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Uninflammable resistor
FR	: Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	: [pF]
less than 1	: [μF]

● Withstand voltage

No indication	: DC50[V]
Others	: DC withstand voltage [V]
AC indicated	: AC withstand voltage [V]

∗ Electrolytic Capacitors

47/50[Example]: Capacitance value [μF]/withstand voltage[V]

● Type

No indication	: Ceramic capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

(3)Coils

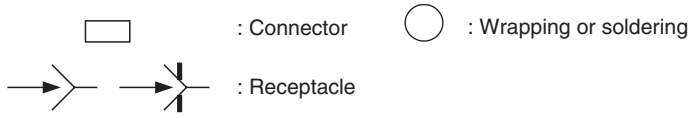
No unit	: [μH]
Others	: As specified

(4)Power Supply

∗ Respective voltage values are indicated

(5)Test point

(6)Connecting method



(7)Ground symbol

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

NOTE

◆ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

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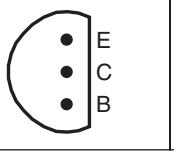
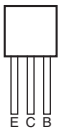
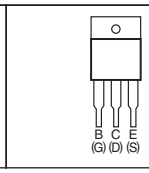
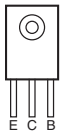
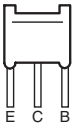
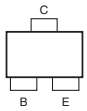
USING P.W. BOARD

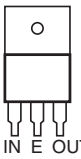
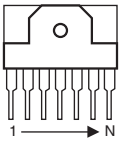
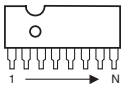
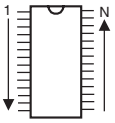
P.W.B ASS'Y name	LT-19D200/AK
MAIN P.W. BOARD	FU-1ESA21430
JACK P.W. BOARD	FU-1ESA20948-1
FUNCTION P.W. BOARD	FU-1ESA20948-2
JUNCTION-A P.W. BOARD	FU-1ESA20948-3
JUNCTION-B P.W. BOARD	FU-1ESA20948-4
JUNCTION-C P.W. BOARD	FU-1ESA20948-5
DIGITAL MAIN P.W. BOARD	FU-1ESA19805(Not supply individual parts of this PWB.)
DVD MAIN P.W. BOARD	FU-N7EX2KUP(Not supply individual parts of this PWB.)

SEMICONDUCTOR SHAPES

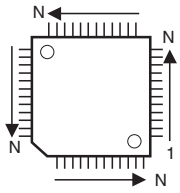
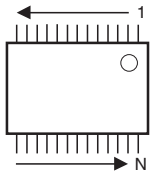
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

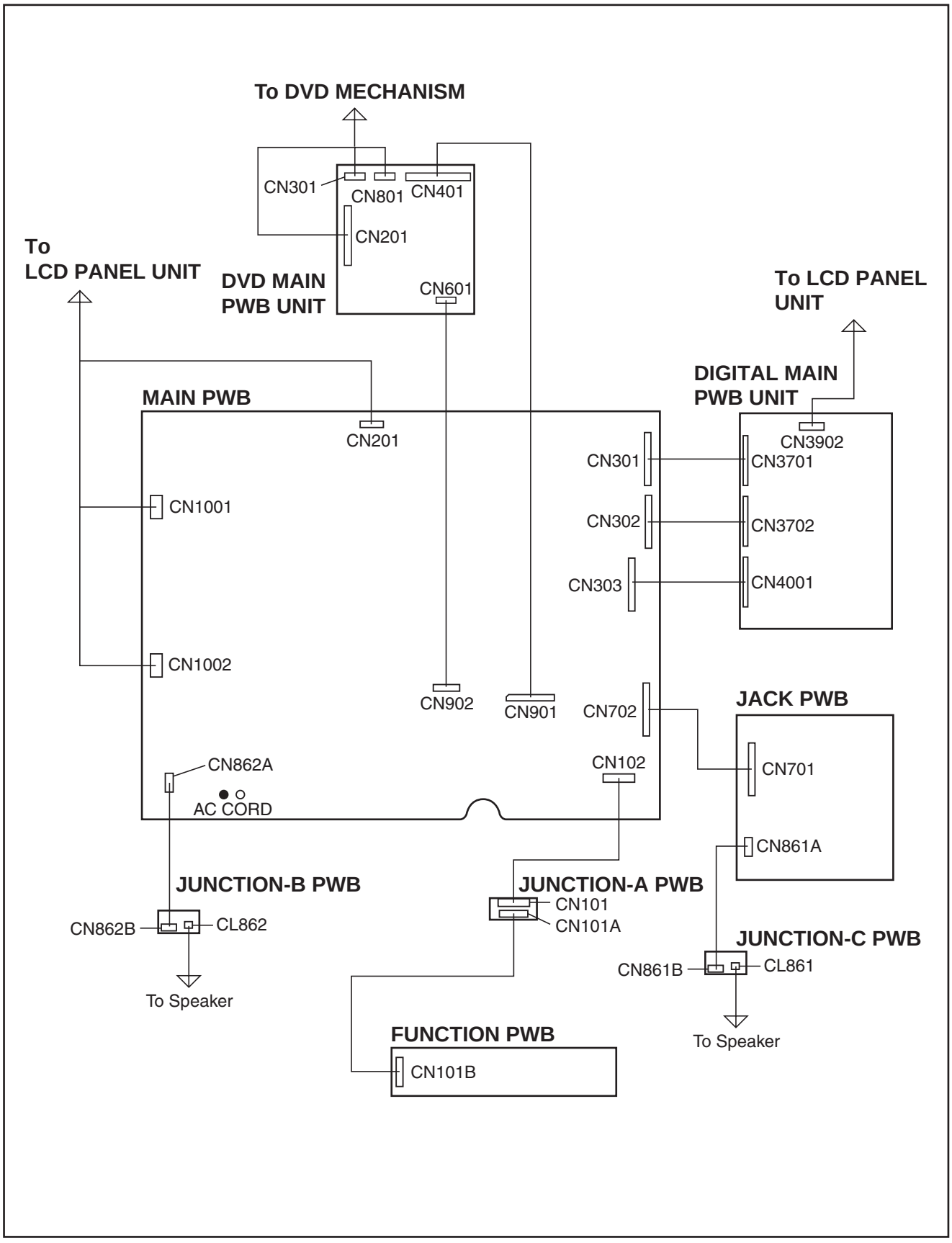
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

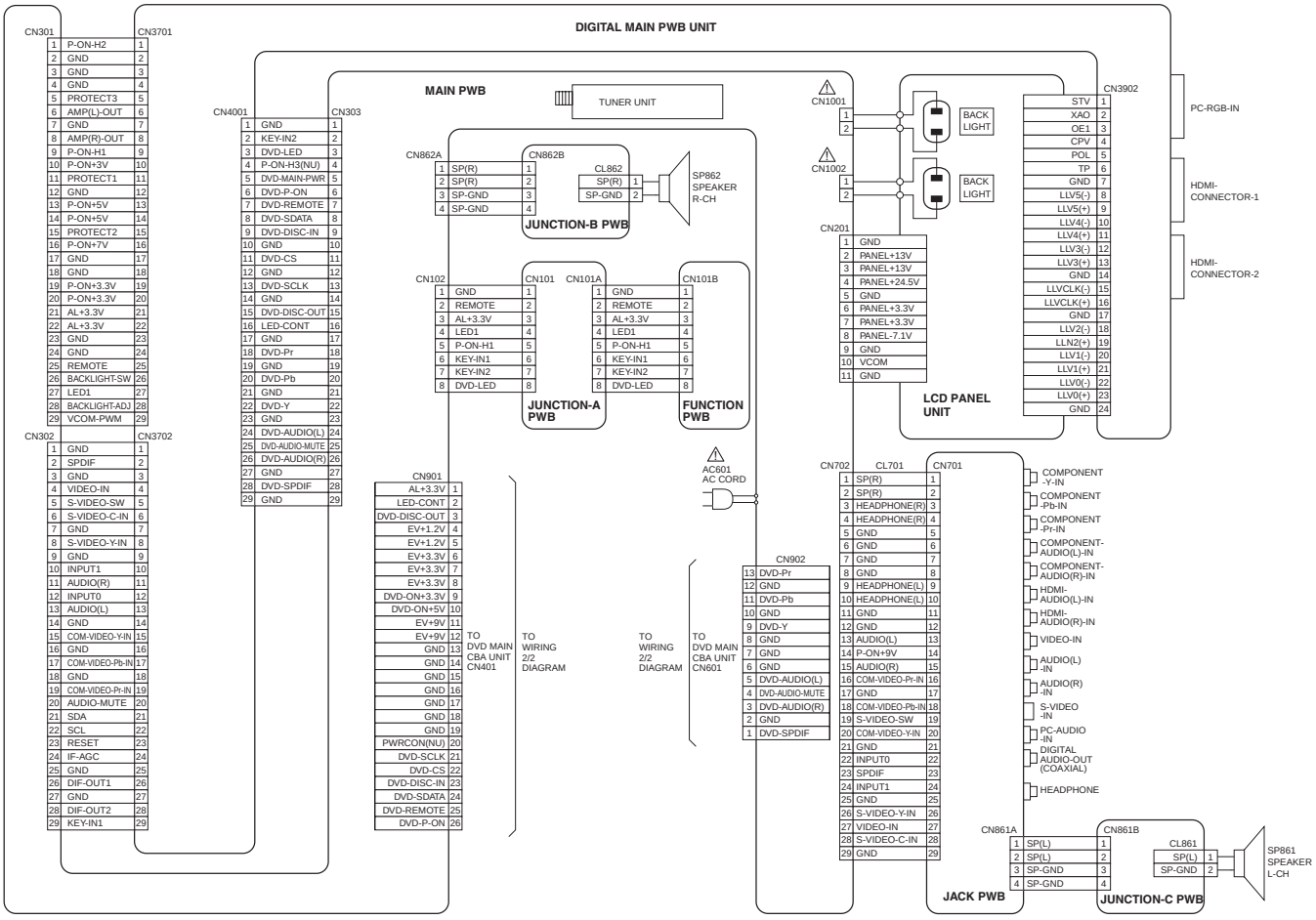
CHIP IC

TOP VIEW		
		

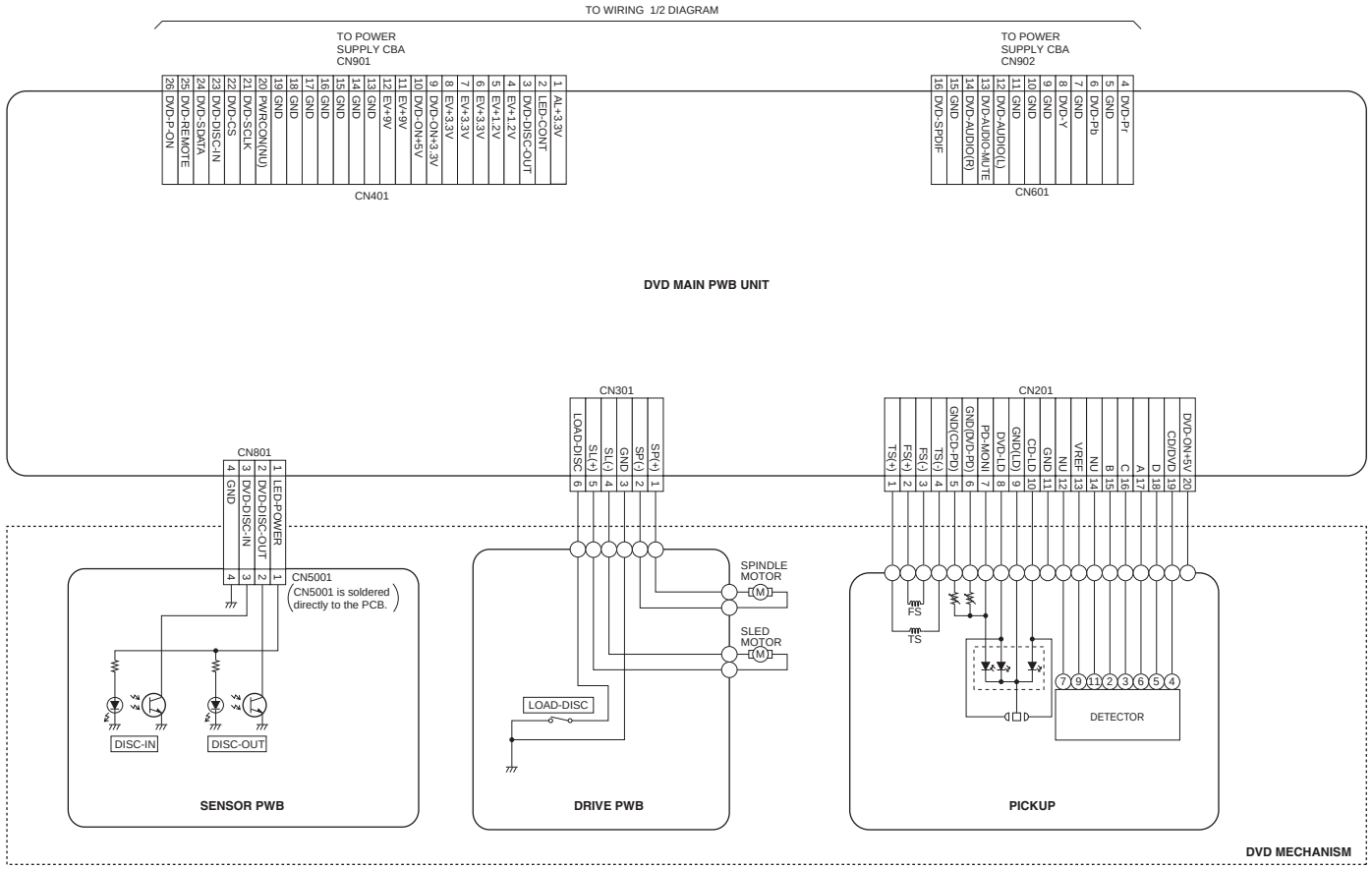
WIRING DIAGRAM [TV CABLE]



WIRING DIAGRAM (1/2)



WIRING DIAGRAM (2/2)



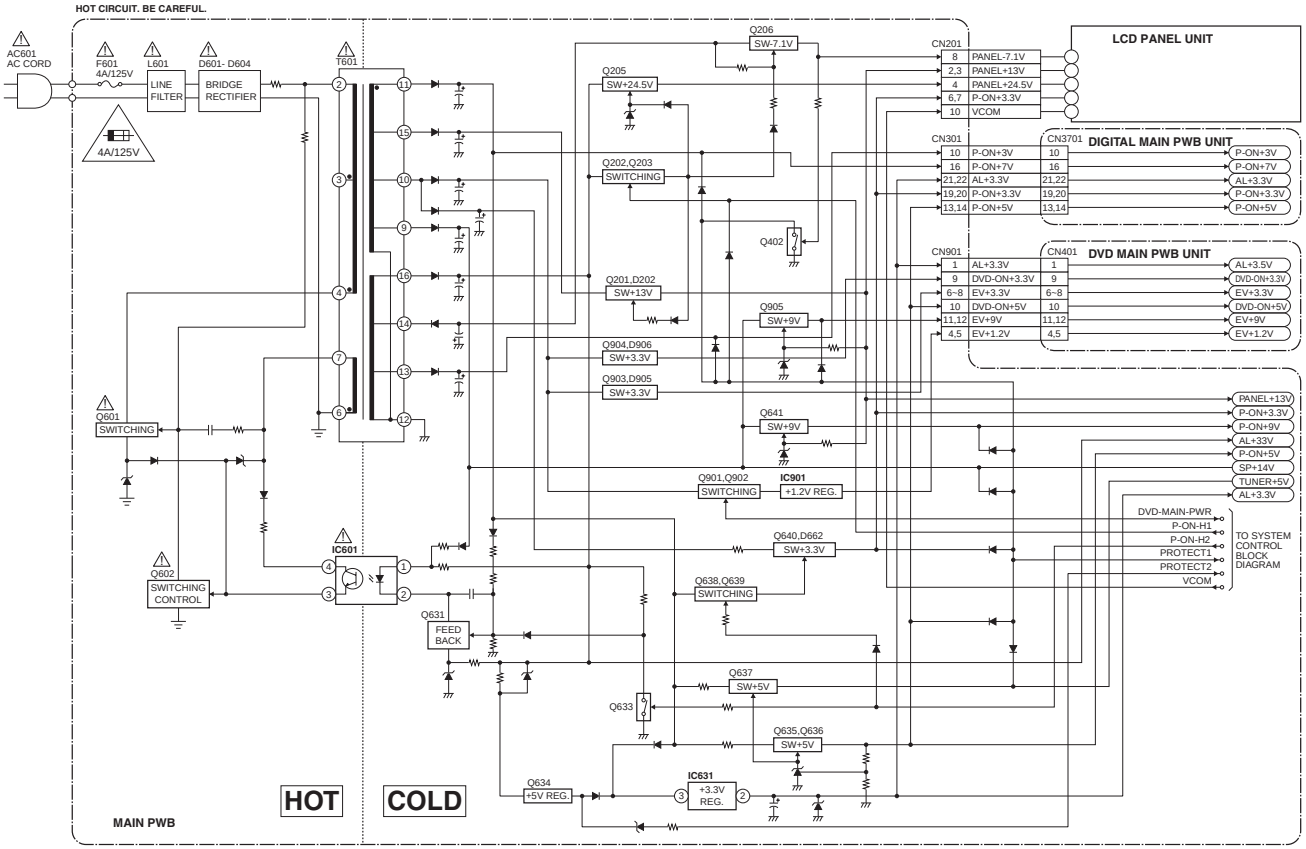
POWER SUPPLY BLOCK DIAGRAM

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

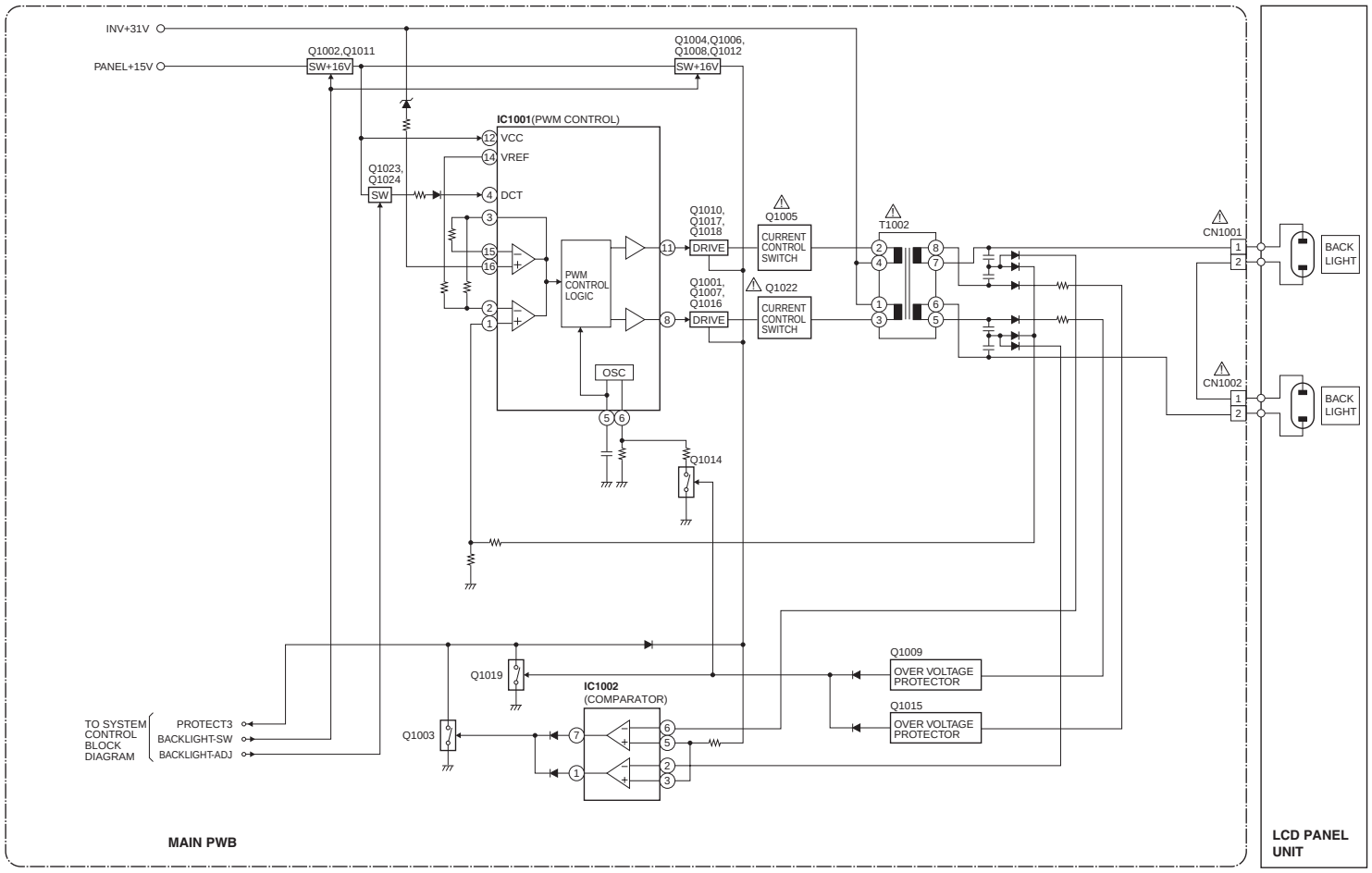
4A/125V

CAUTION ! : For continued protection against risk of fire, replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

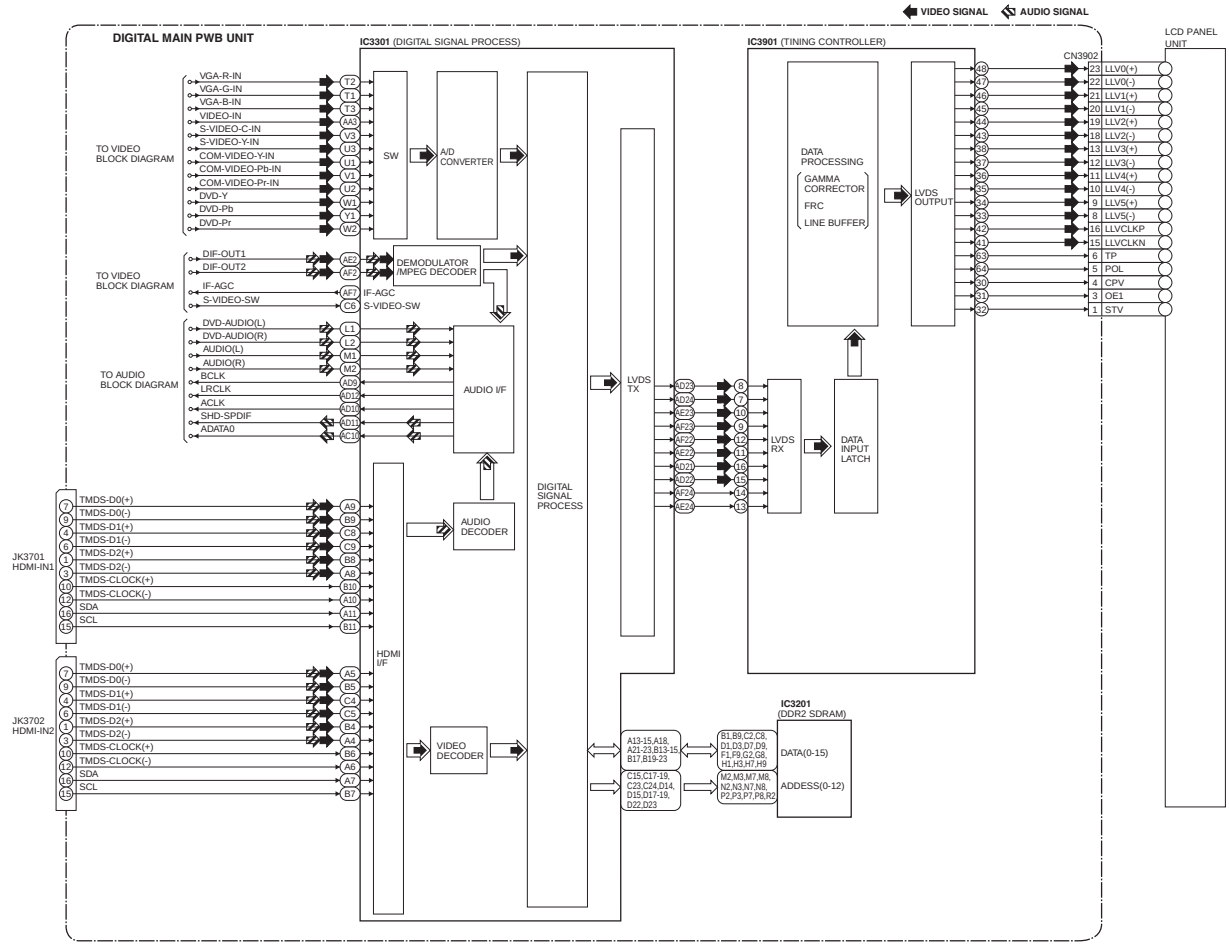
NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



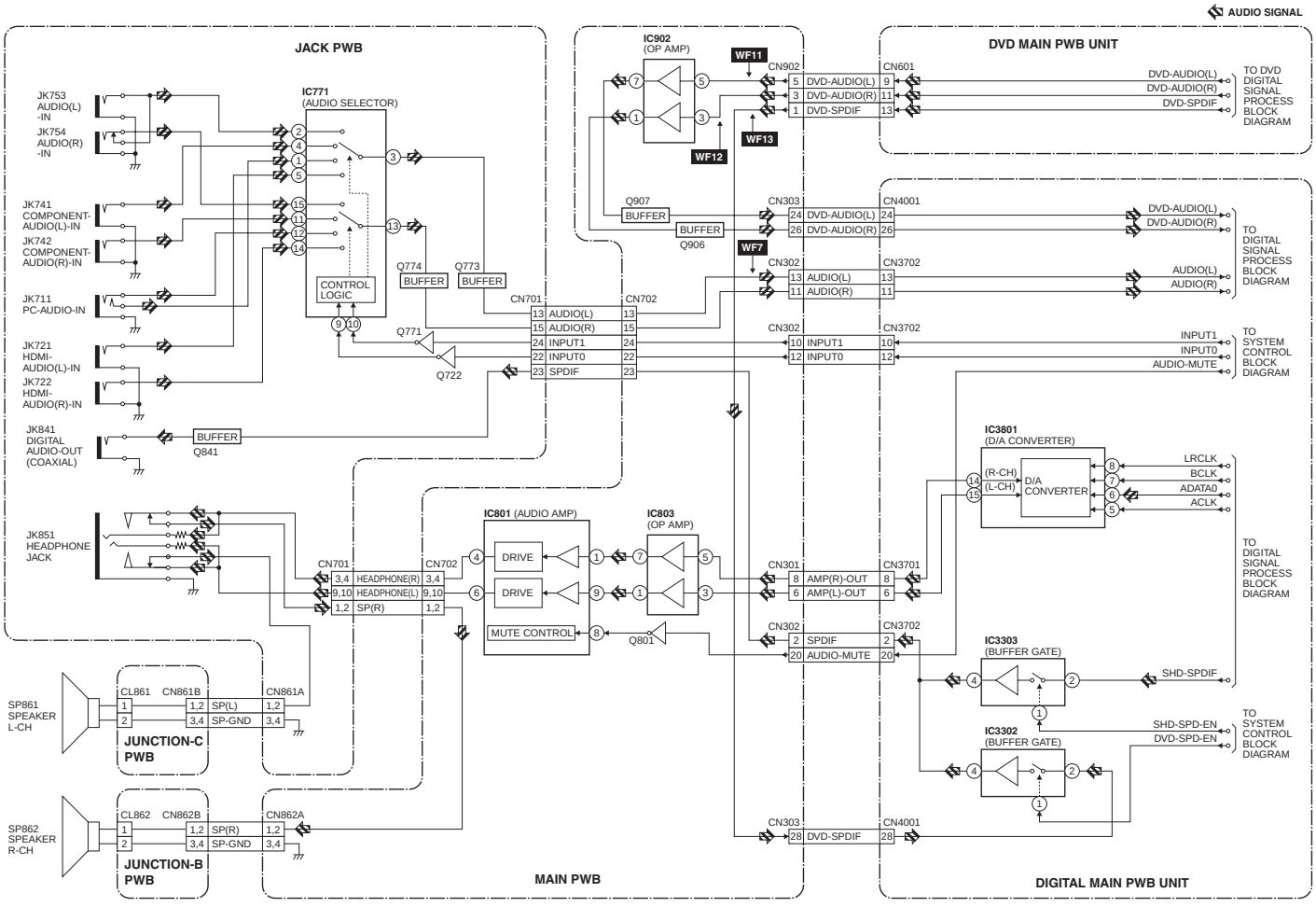
INVERTER BLOCK DIAGRAM



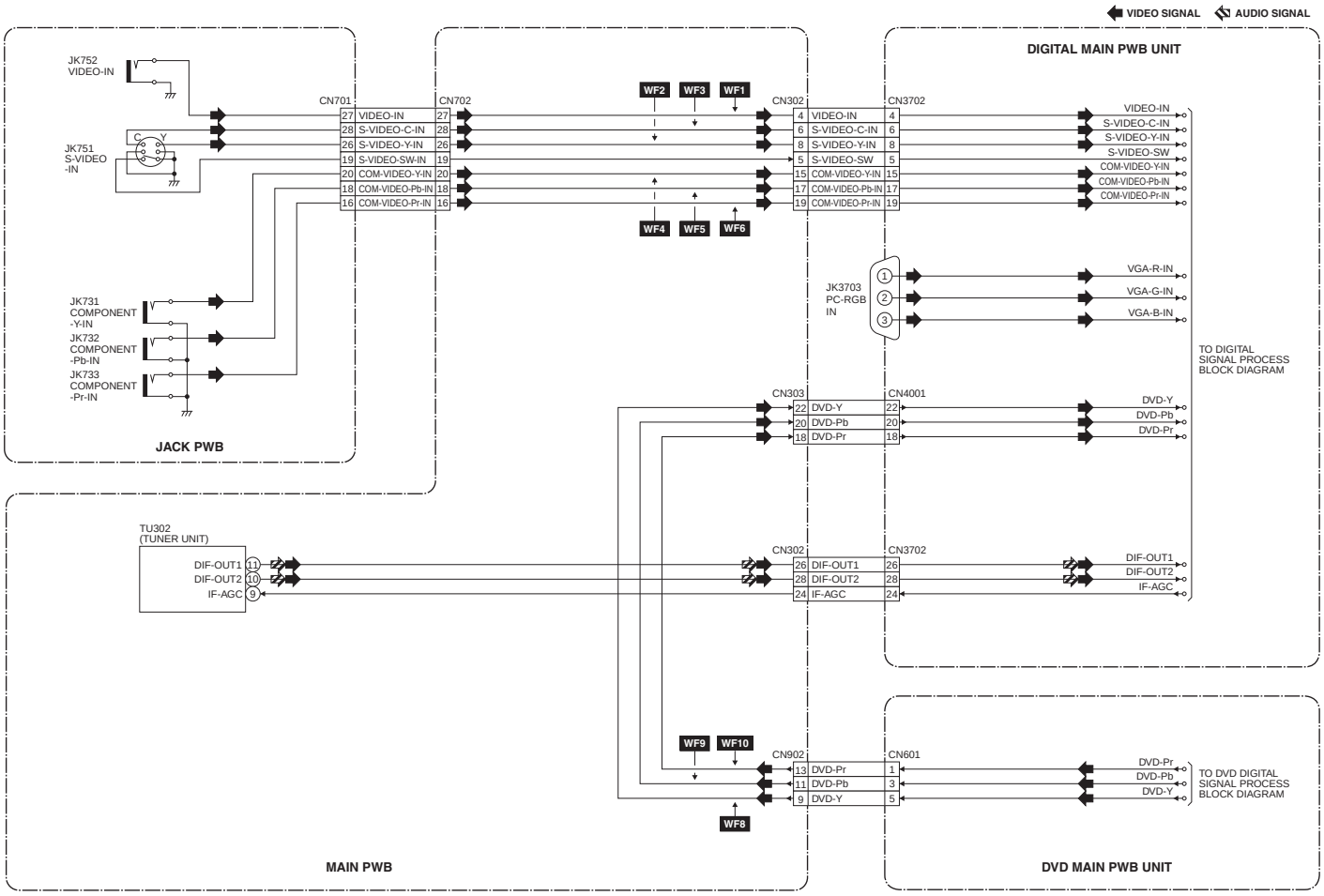
DIGITAL SIGNAL PROCESS BLOCK DIAGRAM



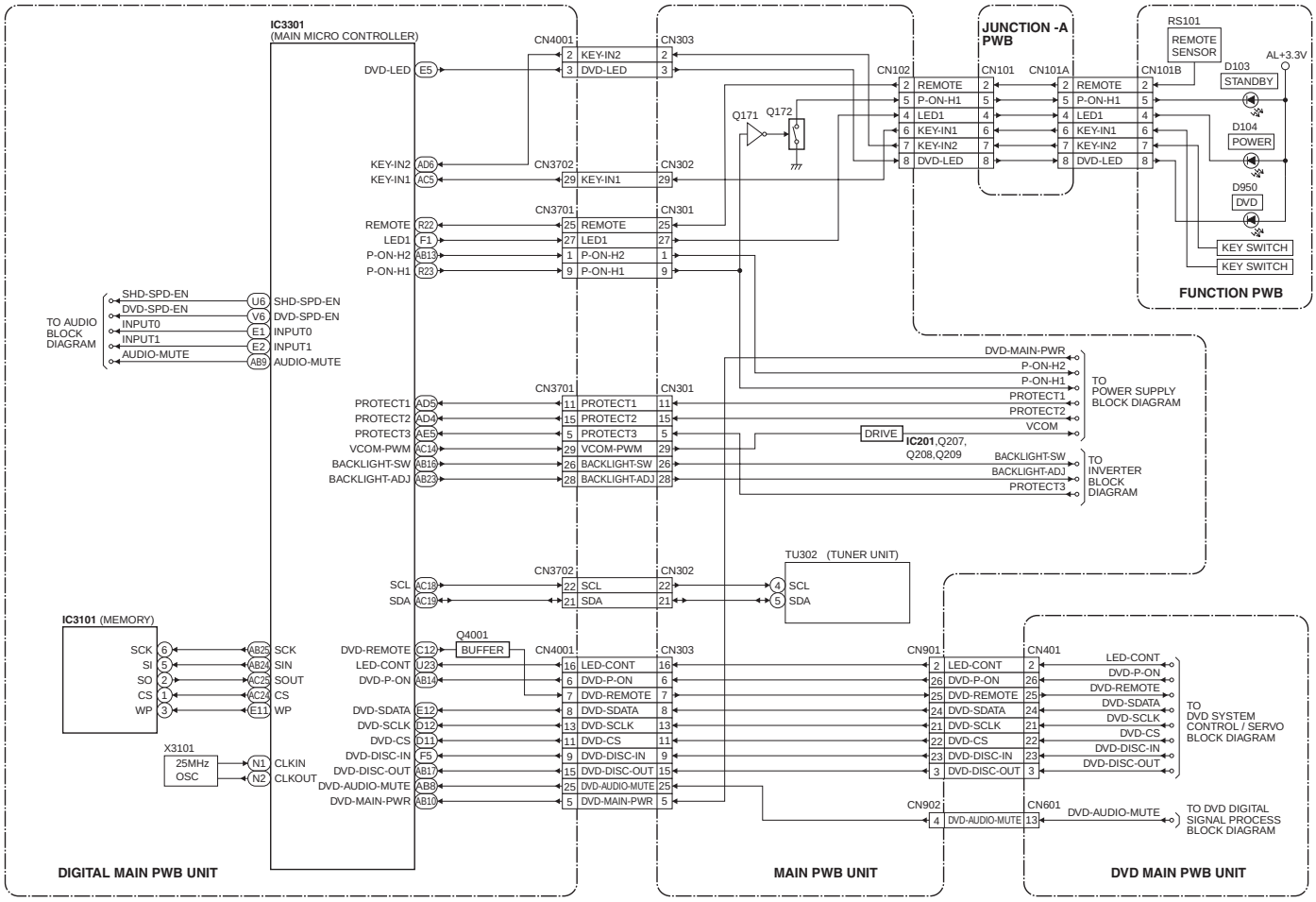
AUDIO BLOCK DIAGRAM



VIDEO BLOCK DIAGRAM

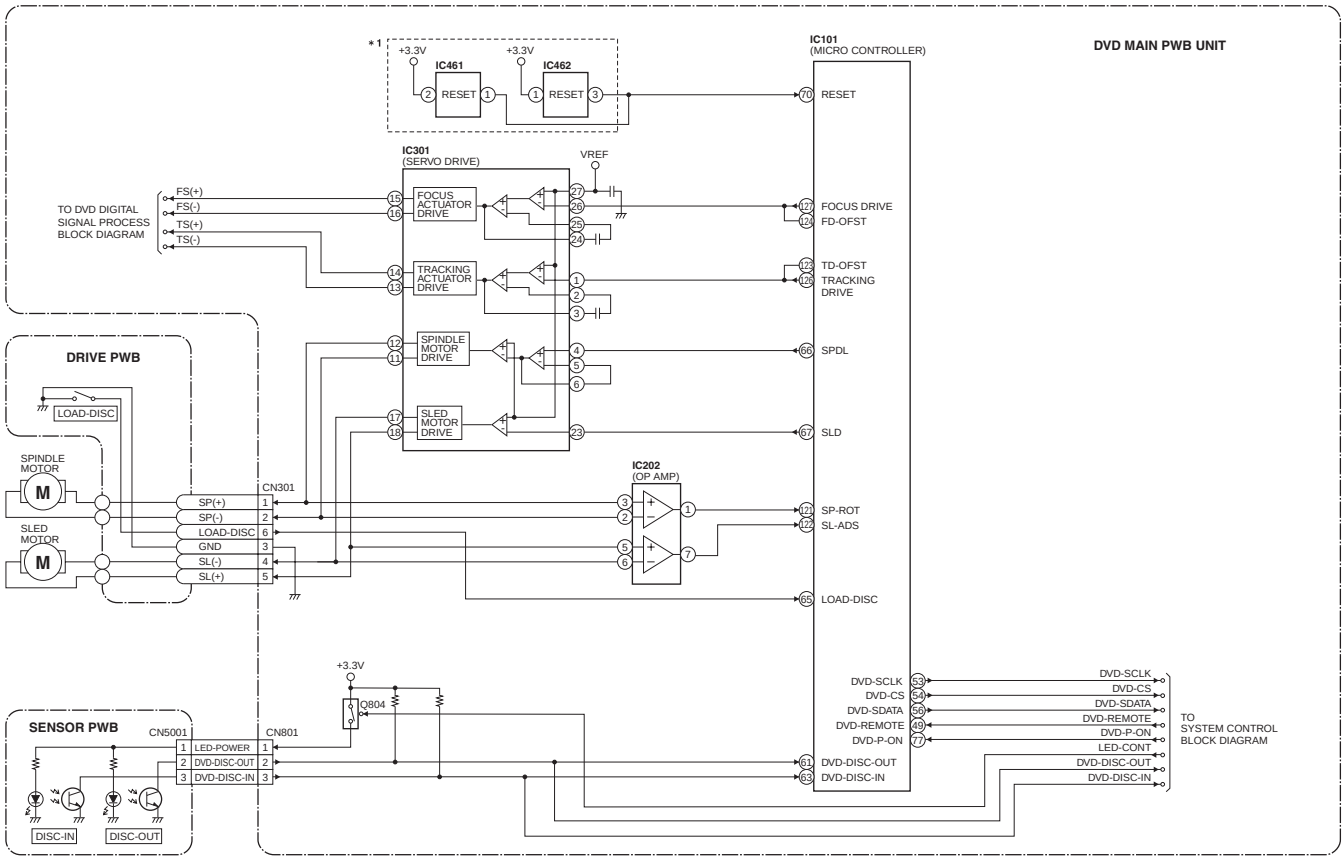


SYSTEM CONTROL BLOCK DIAGRAM

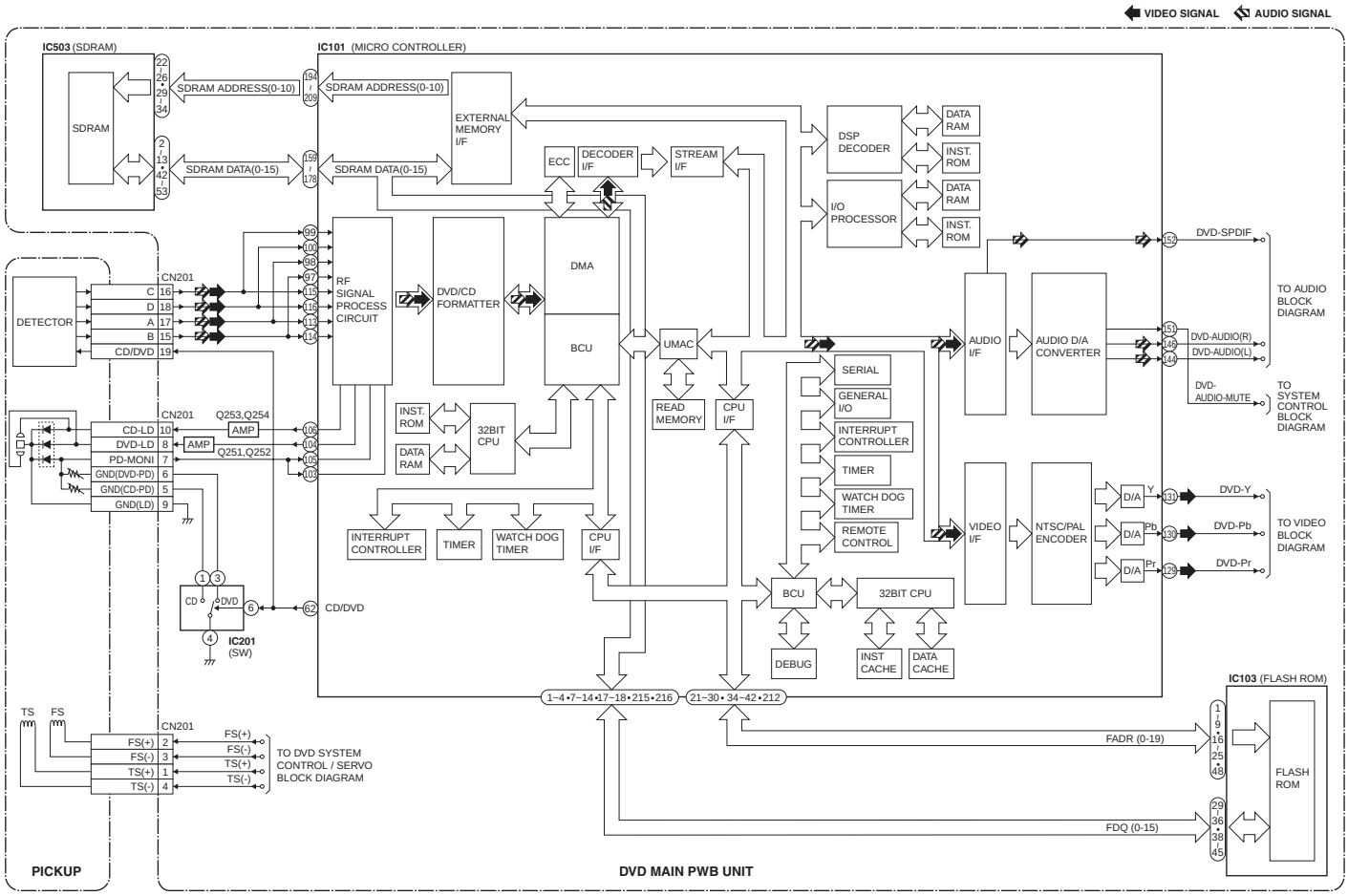


DVD SYSTEM CONTROL/SERVO BLOCK DIAGRAM

***1 NOTE:**
Either IC461 or IC462 is used for DVD MAIN CBA UNIT.

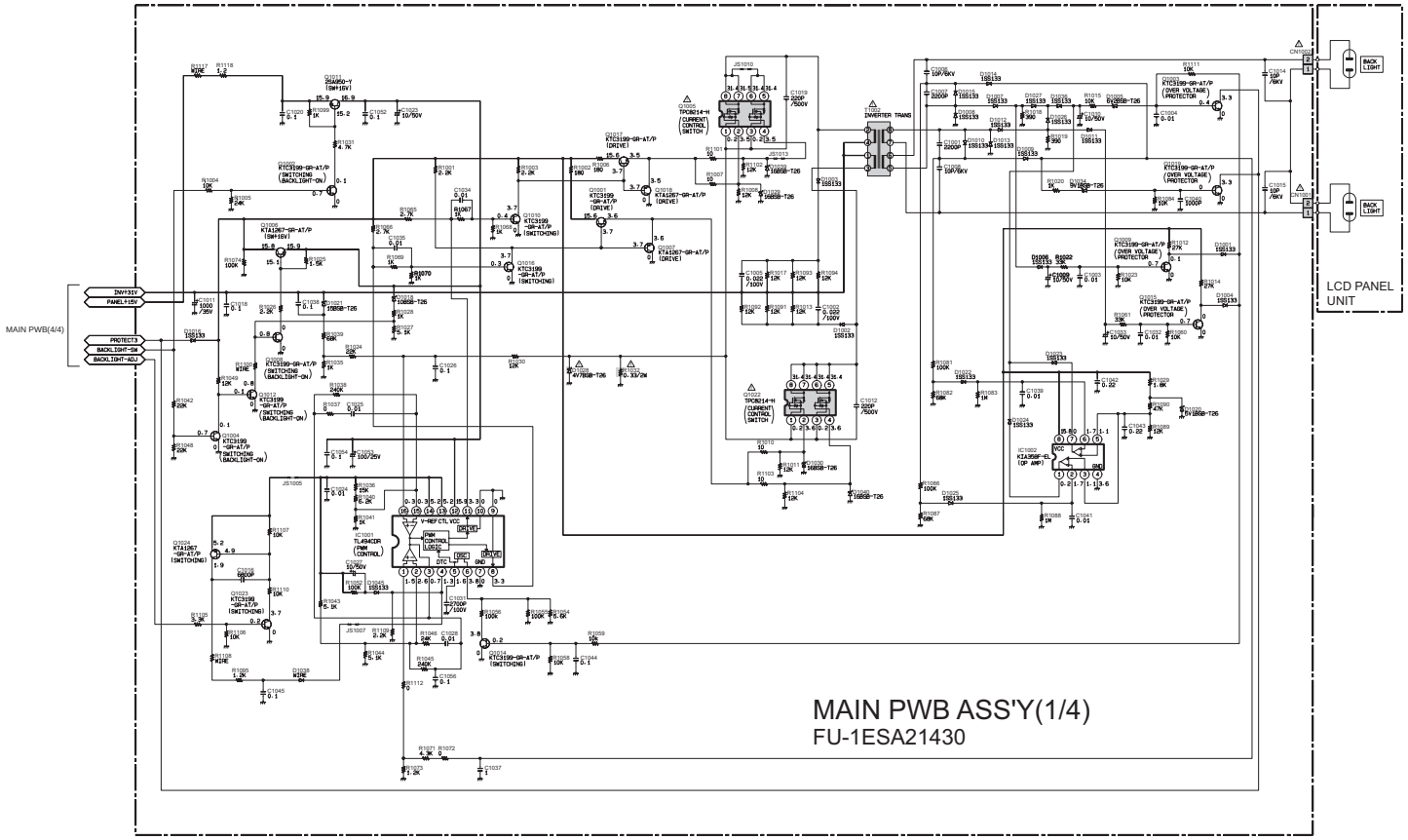


DVD DIGITAL SIGNAL PROCESS BLOCK DIAGRAM



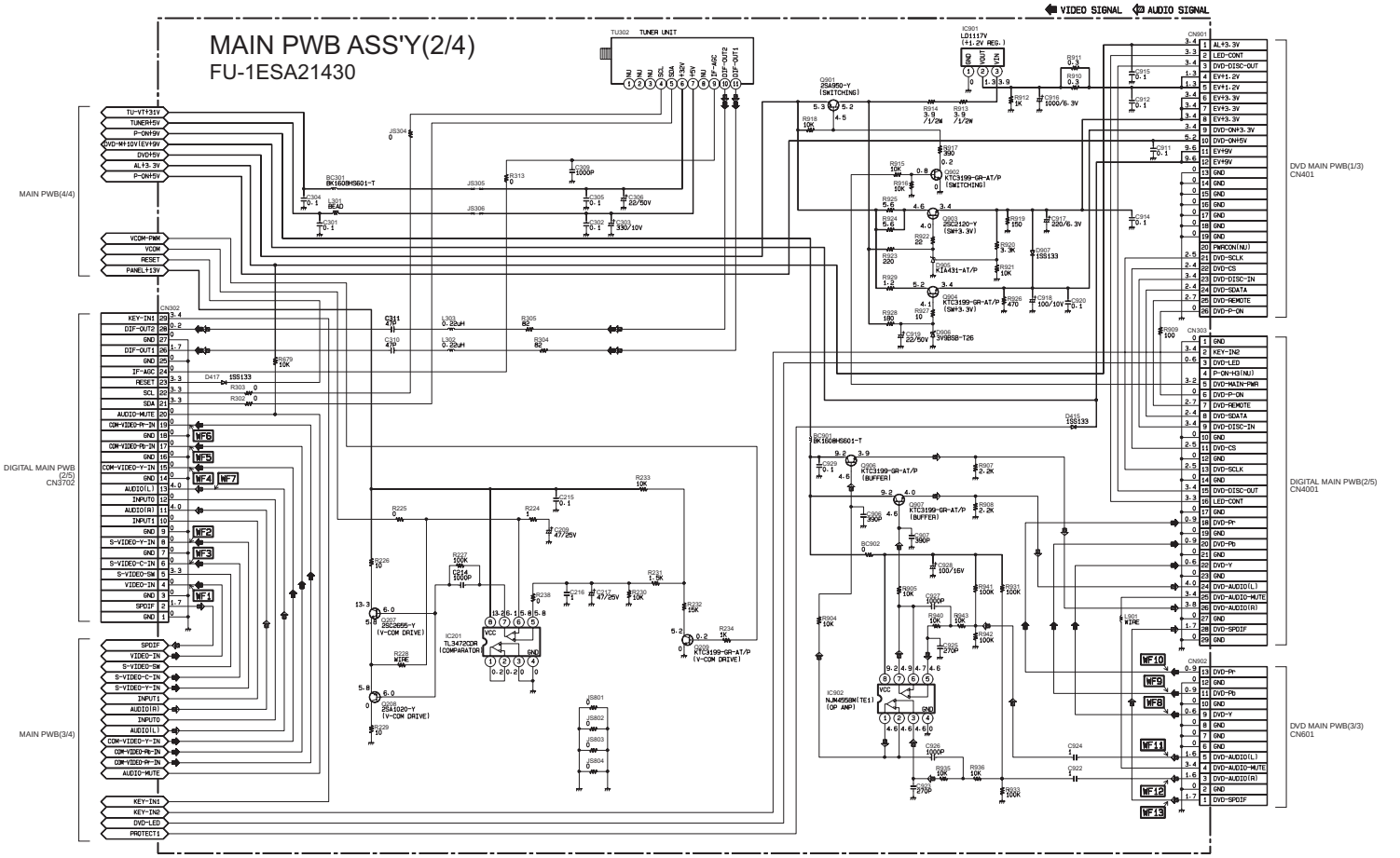
CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/4)



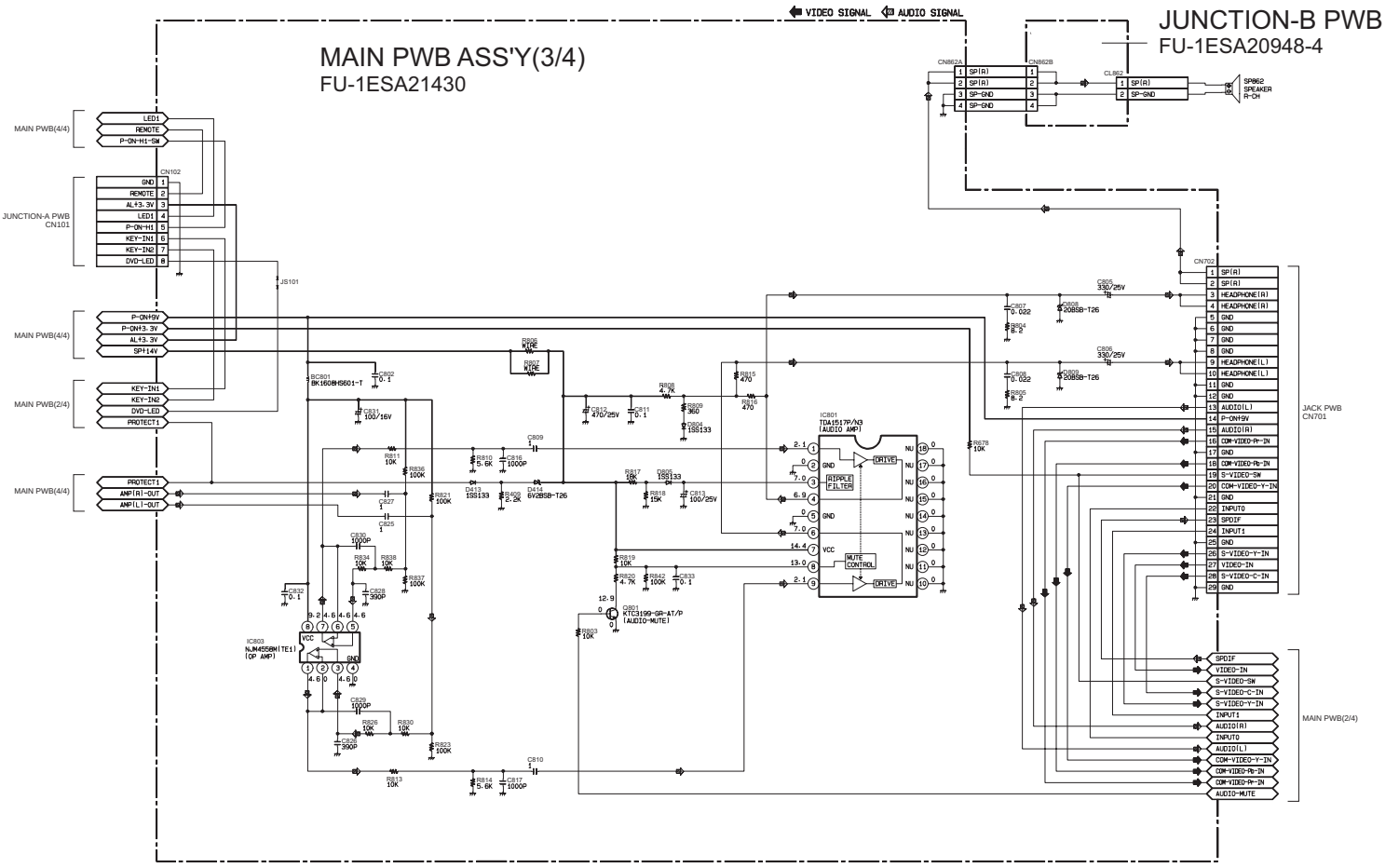
A94N5SCM1_0430_1/4_0.0

MAIN PWB CIRCUIT DIAGRAM (2/4)



A94N5SCM2_0430_2/4_0.0

MAIN PWB CIRCUIT DIAGRAM (3/4) AND JUNCTION-B CIRCUIT DIAGRAM



A94N5SCM3_0430_3/4_0.0

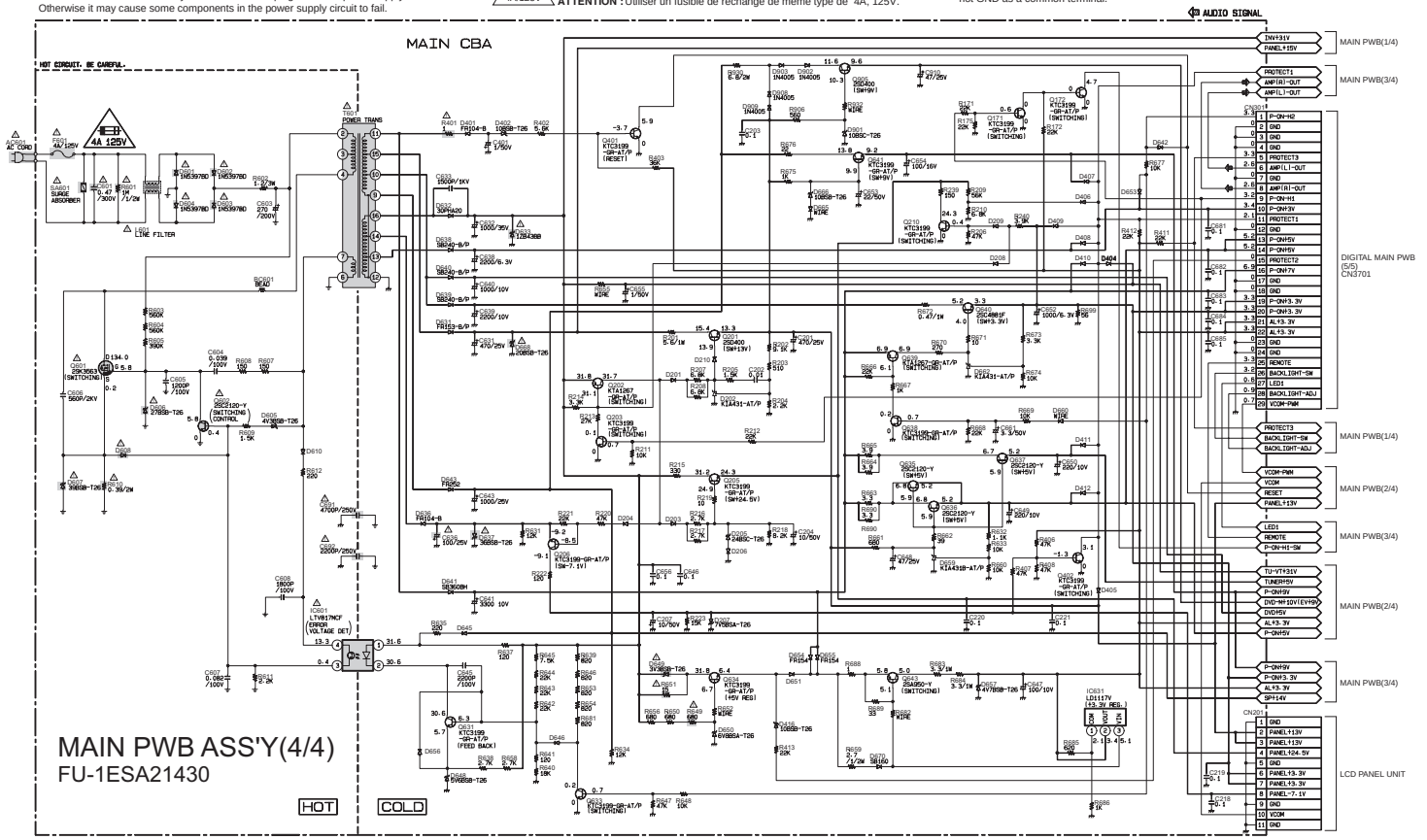
MAIN PWB CIRCUIT DIAGRAM (4/4)

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

4A/125V

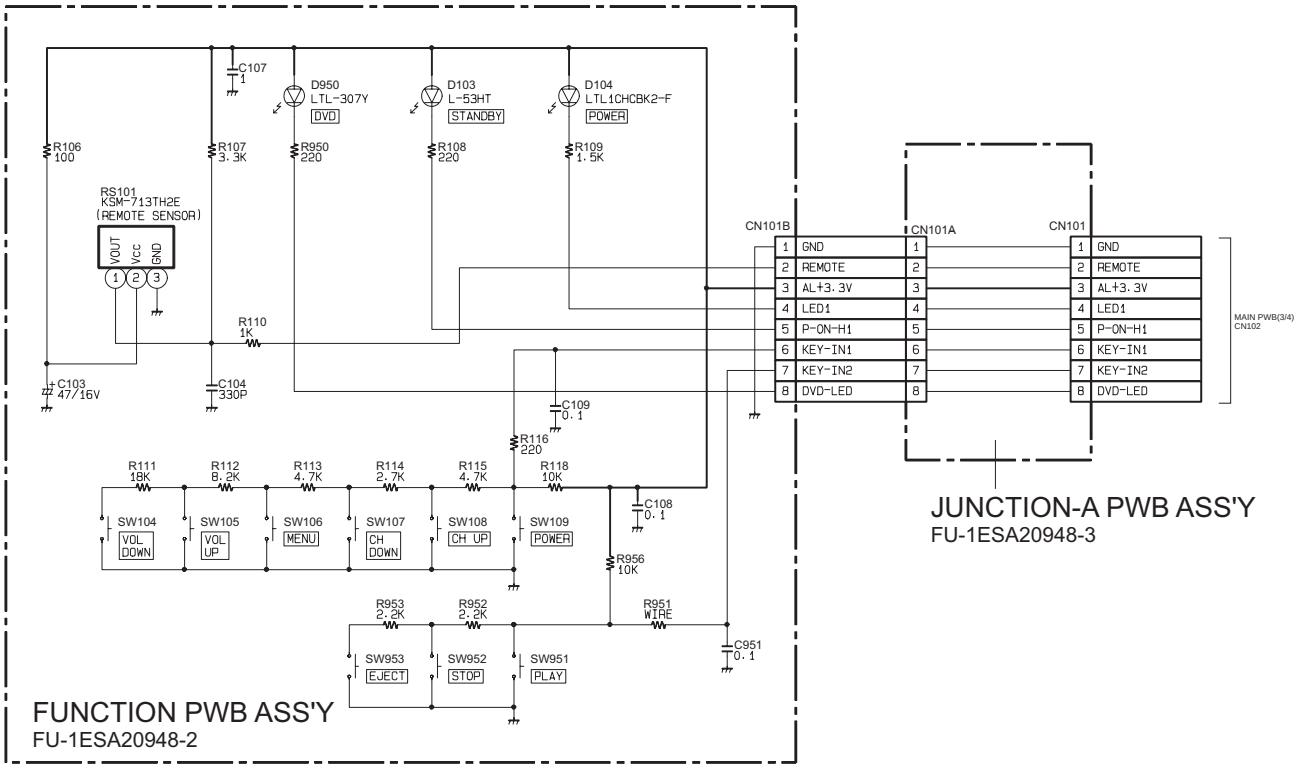
CAUTION ! : For continued protection against risk of fire, replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



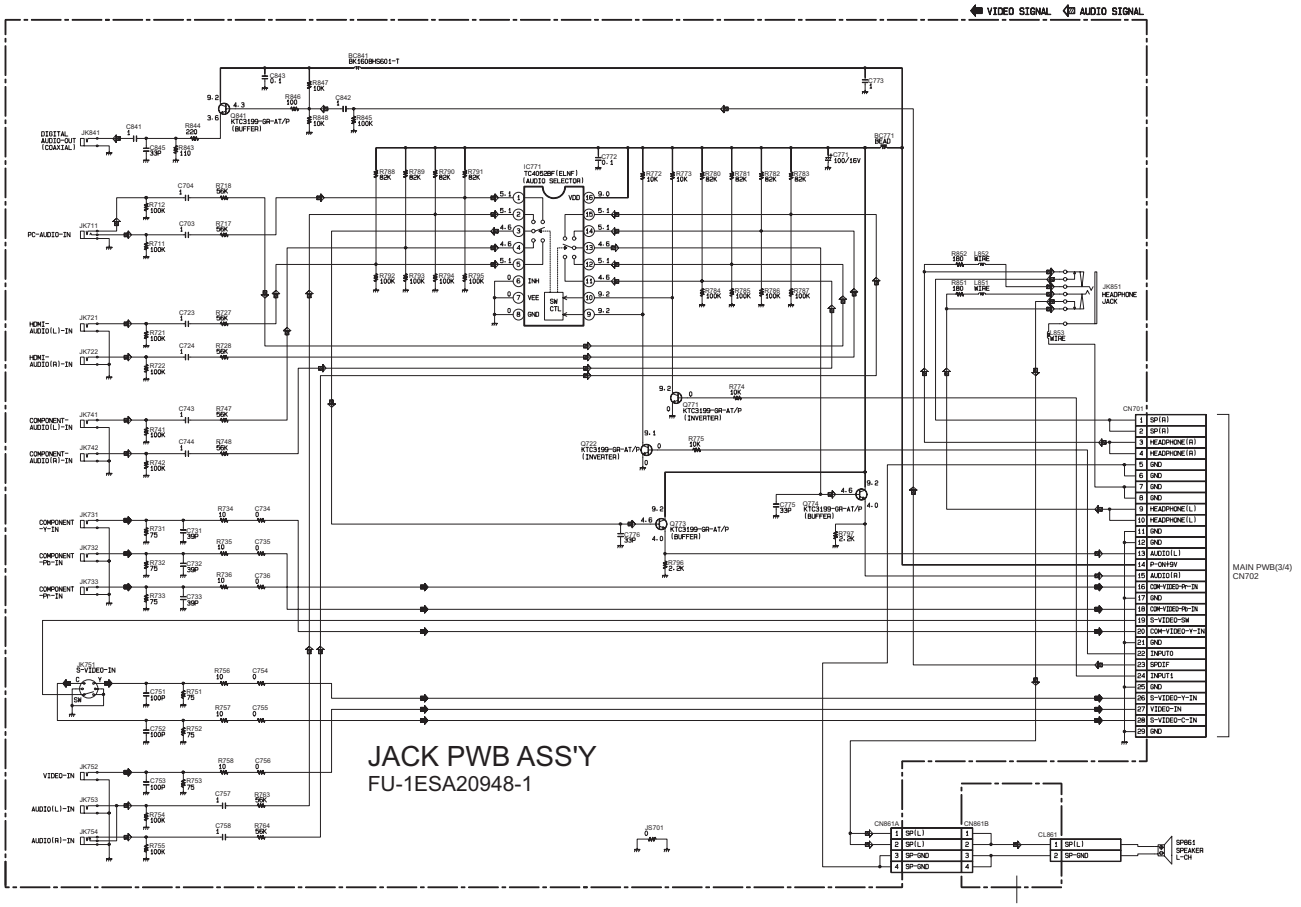
A94N5SCM4_0430_4/4_0.0

FUNCTION PWB CIRCUIT DIAGRAM AND JUNCTION-A PWB CIRCUIT DIAGRAM



A94N5SCF_0430_1/1_0.0

JACK AND JUNCTION-C PWB CIRCUIT DIAGRAM

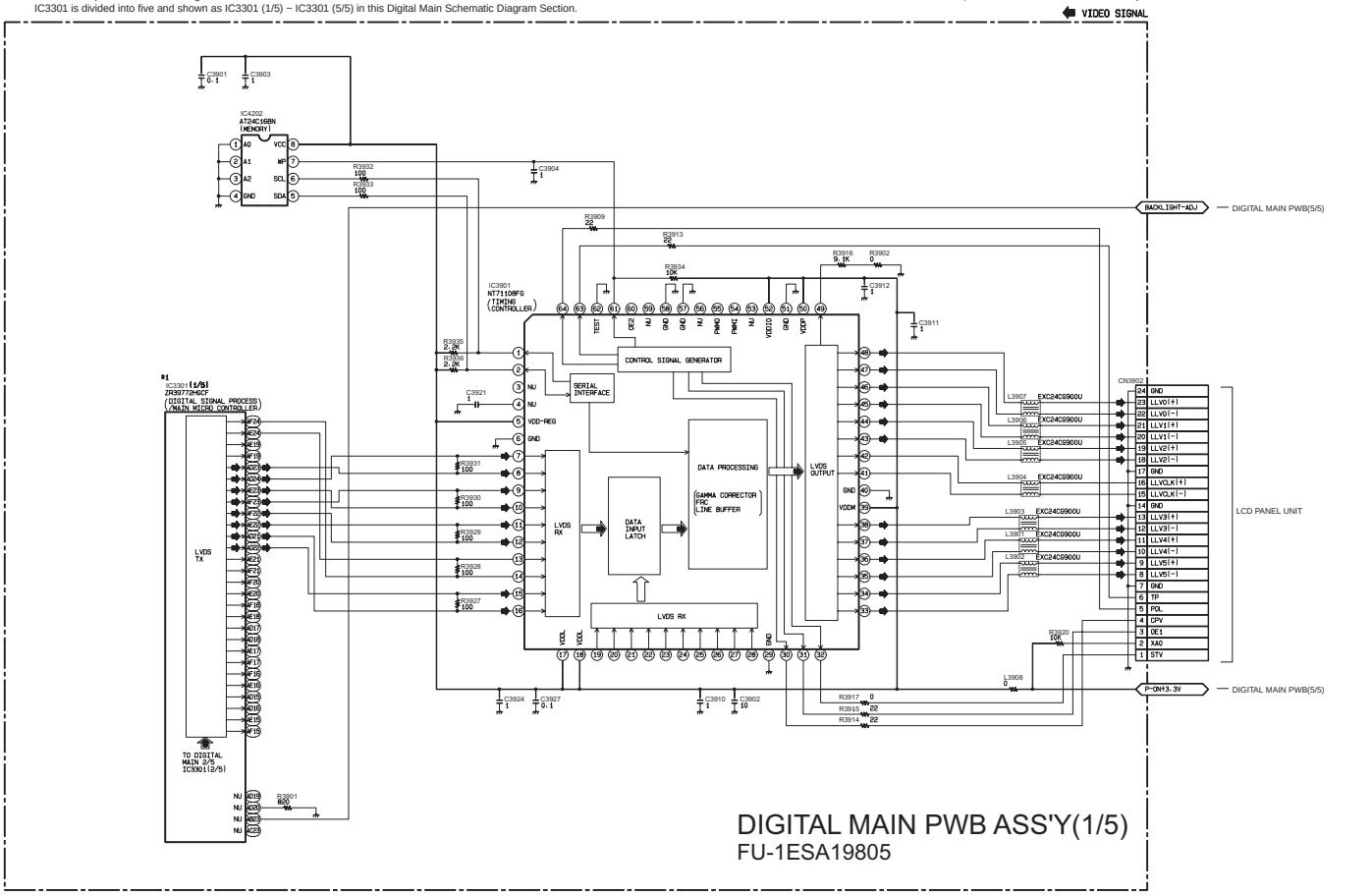


A94N5SCJ_0430_1/1_0.0

DIGITAL MAIN PWB CIRCUIT DIAGRAM (1/5)

This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.

＊1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3301.
IC3301 is divided into five and shown as IC3301 (1/5) ~ IC3301 (5/5) in this Digital Main Schematic Diagram Section.



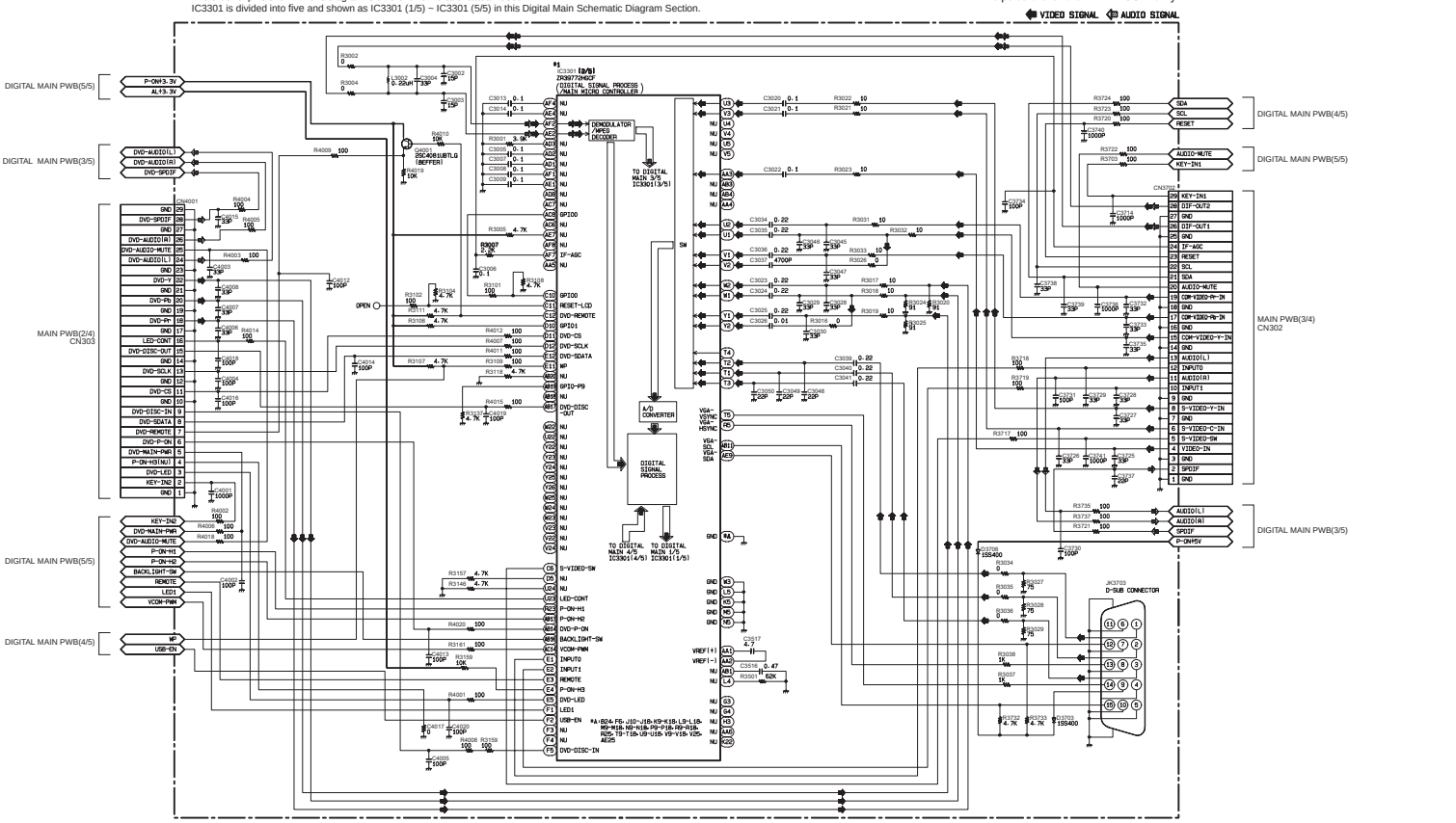
DIGITAL MAIN PWB ASS'Y(1/5)
FU-1ESA19805

A94N5SCD1_0430_1/5_0.0

DIGITAL MAIN PWB CIRCUIT DIAGRAM (2/5)

This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.

∗1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC3301.
IC3301 is divided into five and shown as IC3301 (1/5) ~ IC3301 (5/5) in this Digital Main Schematic Diagram Section.



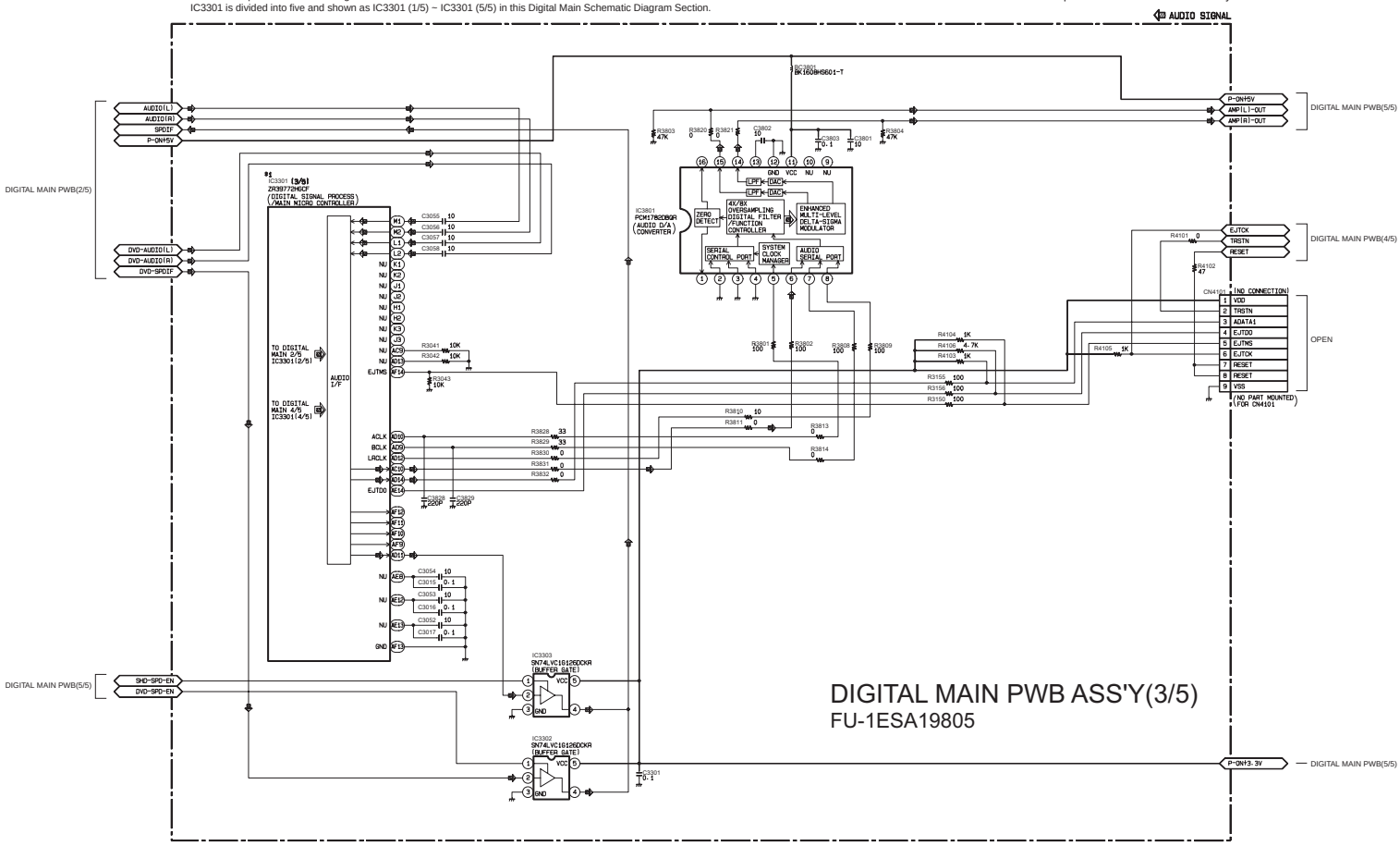
DIGITAL MAIN PWB ASS'Y(2/5)
FU-1ESA19805

A94N5SCD2_0430_2/5_0.0

DIGITAL MAIN PWB CIRCUIT DIAGRAM (3/5)

This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3301.
IC3301 is divided into five and shown as IC3301 (1/5) – IC3301 (5/5) in this Digital Main Schematic Diagram Section.

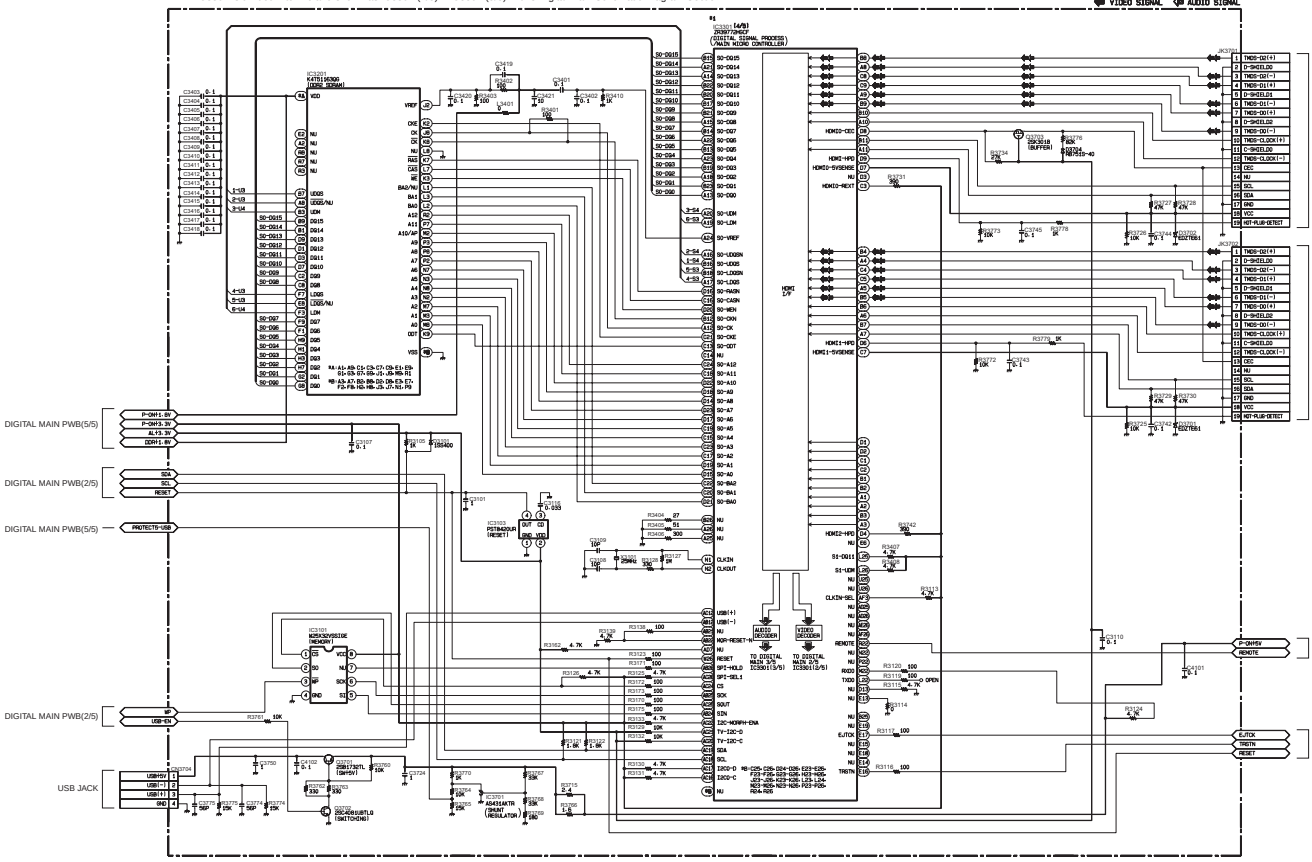


A94N5SCD3_0430_3/5_0.0

DIGITAL MAIN PWB CIRCUIT DIAGRAM (4/5)

This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.

∗1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC3301.
IC3301 is divided into five and shown as IC3301 (1/5) ~ IC3301 (5/5) in this Digital Main Schematic Diagram Section.



DIGITAL MAIN PWB ASS'Y(4/5)

FU-1ESA19805

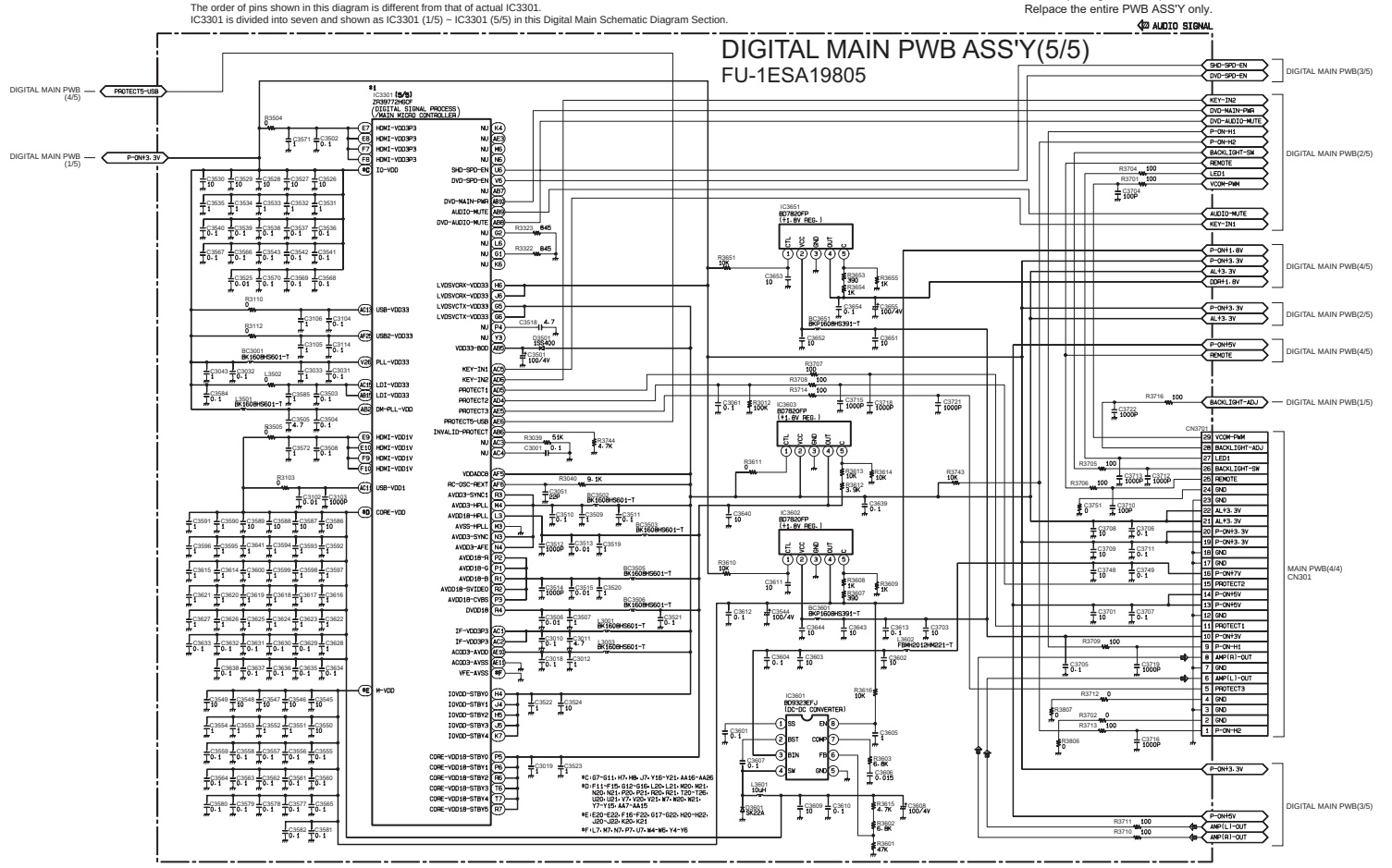
A94N5SCD4_0512_4/5_0.0

DIGITAL MAIN PWB CIRCUIT DIAGRAM (5/5)

This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.

∗1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC3301.
IC3301 is divided into seven and shown as IC3301 (1/5) – IC3301 (5/5) in this Digital Main Schematic Diagram Section.

DIGITAL MAIN PWB ASS'Y(5/5)
FU-1ESA19805



A94N5SCD5_0430_5/5_0.0

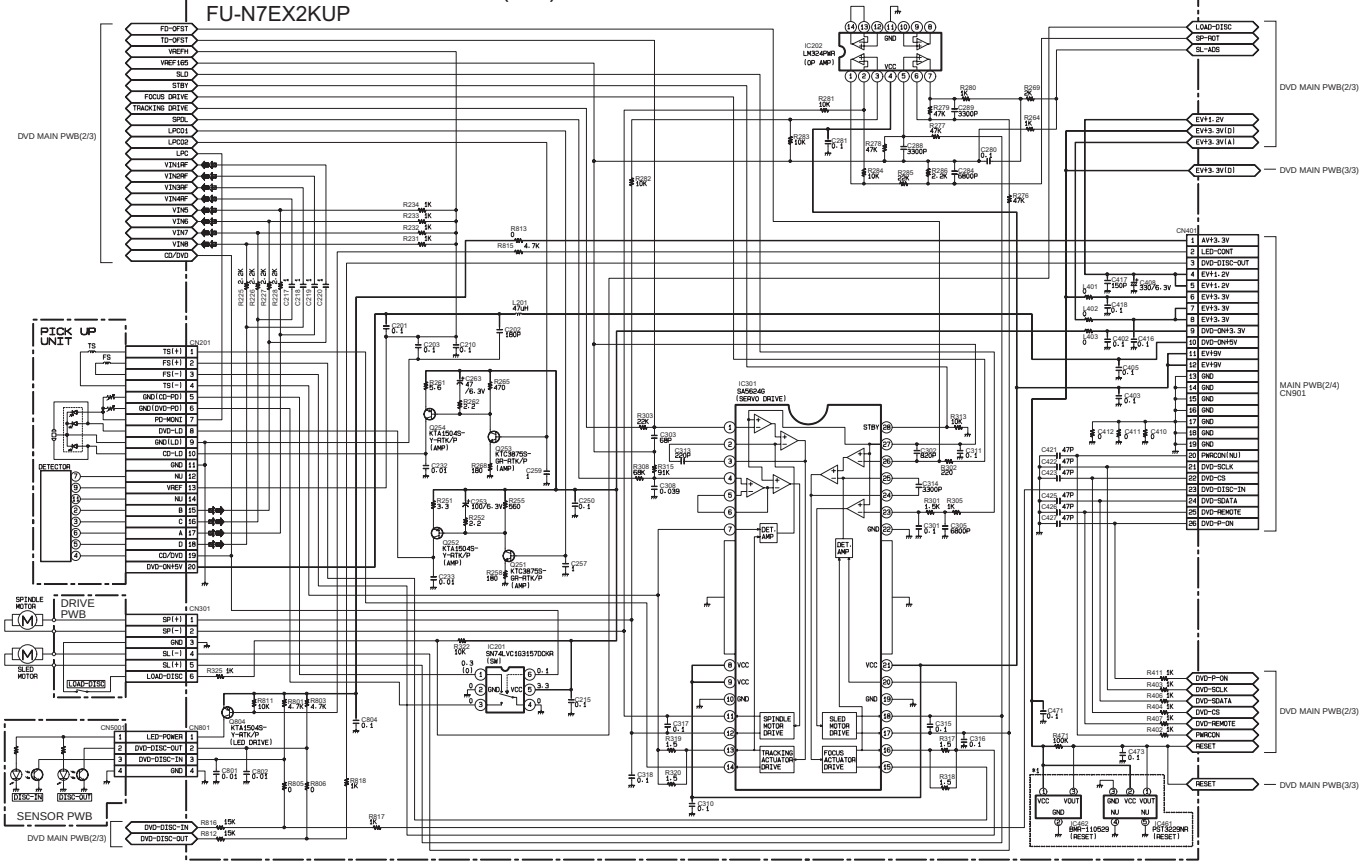
DVD MAIN PWB CIRCUIT DIAGRAM (1/3)

This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.

***1 NOTE:**
Either IC461 or IC462 is used for DVD MAIN CBA UNIT.

VIDEO SIGNAL AUDIO SIGNAL

DVD MAIN PWB ASS'Y(1/3)
FU-N7EX2KUP

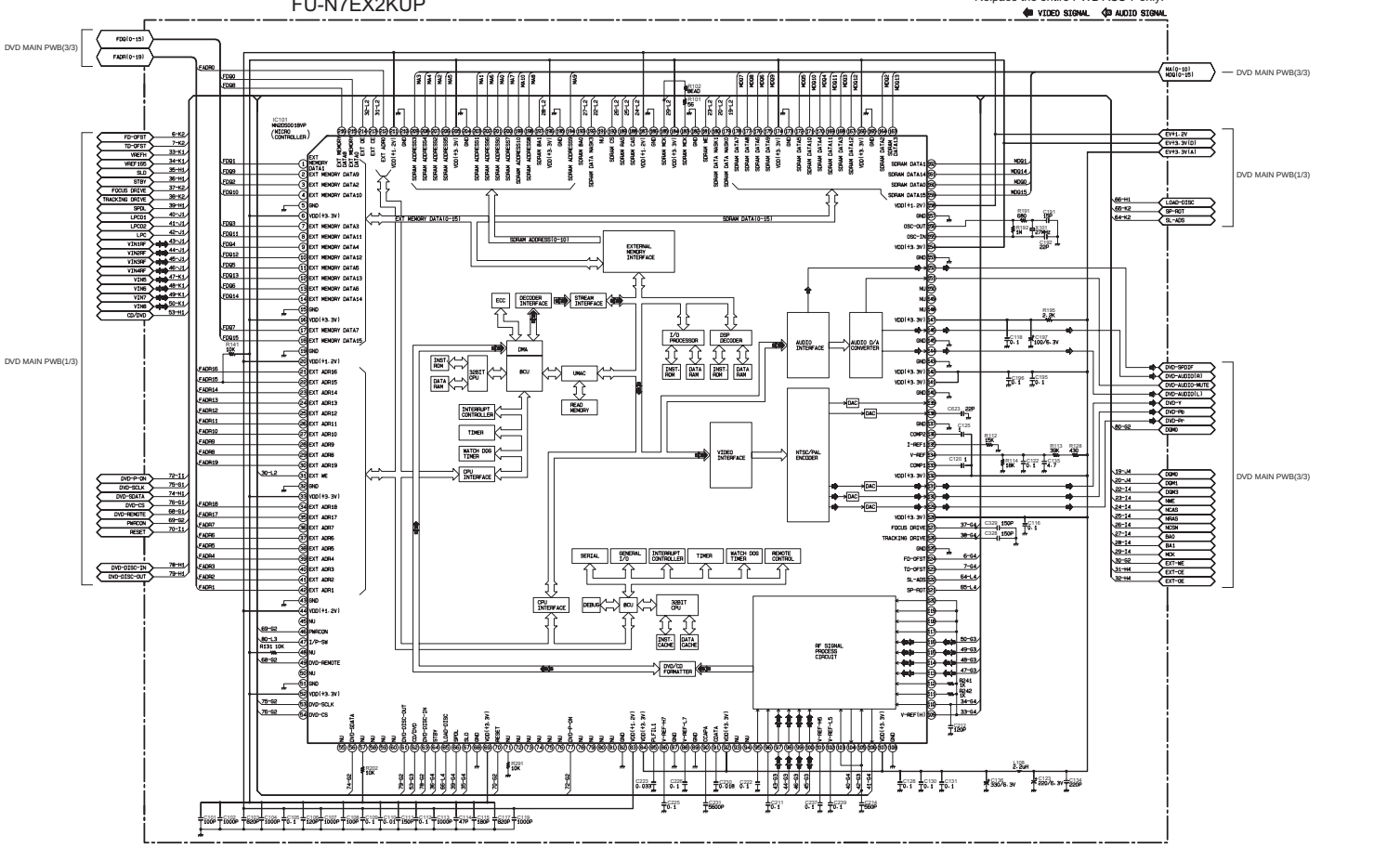


DVD MAIN PWB CIRCUIT DIAGRAM (2/3)

DVD MAIN PWB ASS'Y(2/3)

FU-N7EX2KUP

This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.



A94N5SCDV2_0430_2/3_0.0

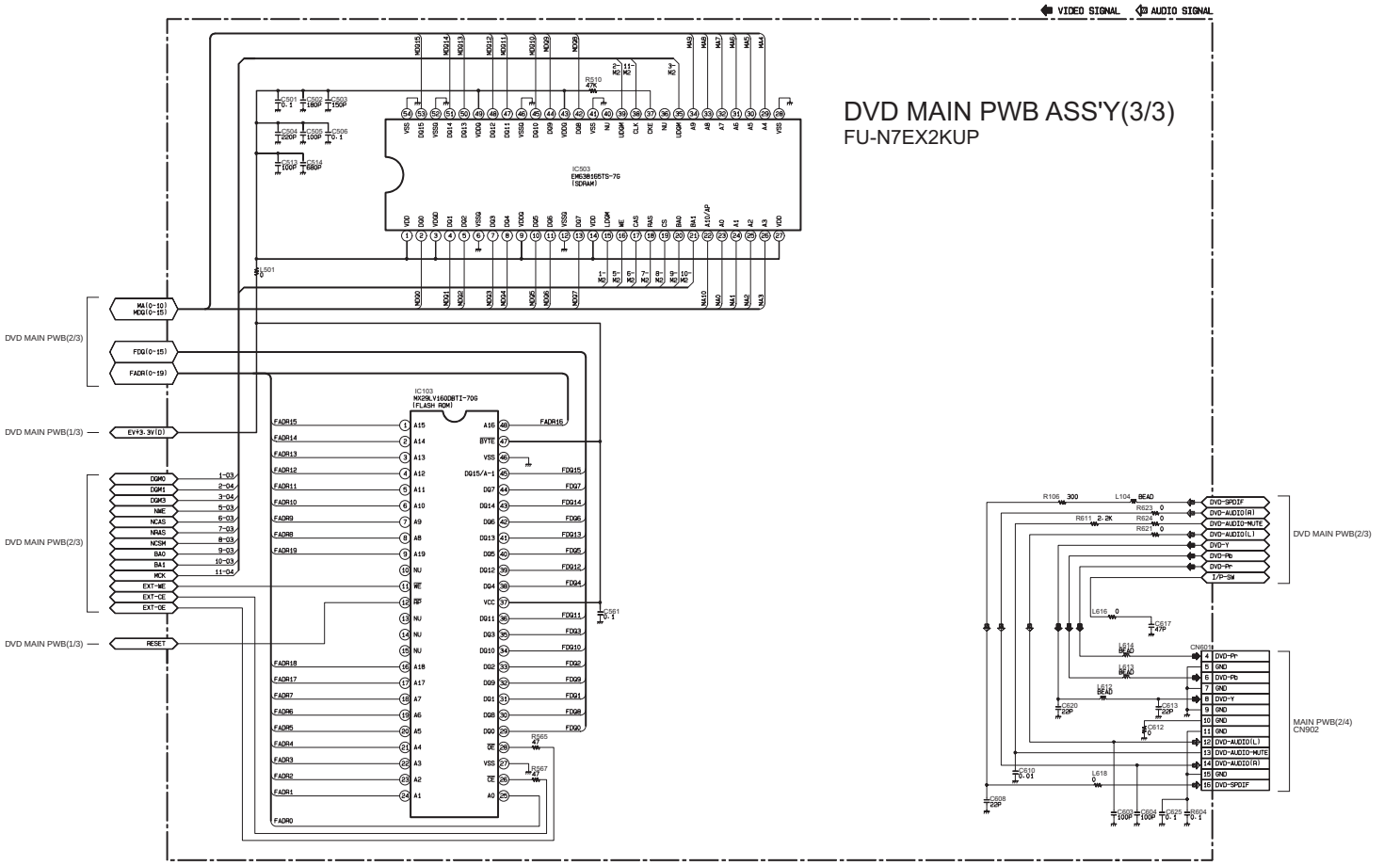
DVD MAIN PWB CIRCUIT DIAGRAM (3/3)

This schematic is only for reference.
Avoid replacing individual parts.
Relpace the entire PWB ASS'Y only.

VIDEO SIGNAL AUDIO SIGNAL

DVD MAIN PWB ASS'Y(3/3)

FU-N7EX2KUP

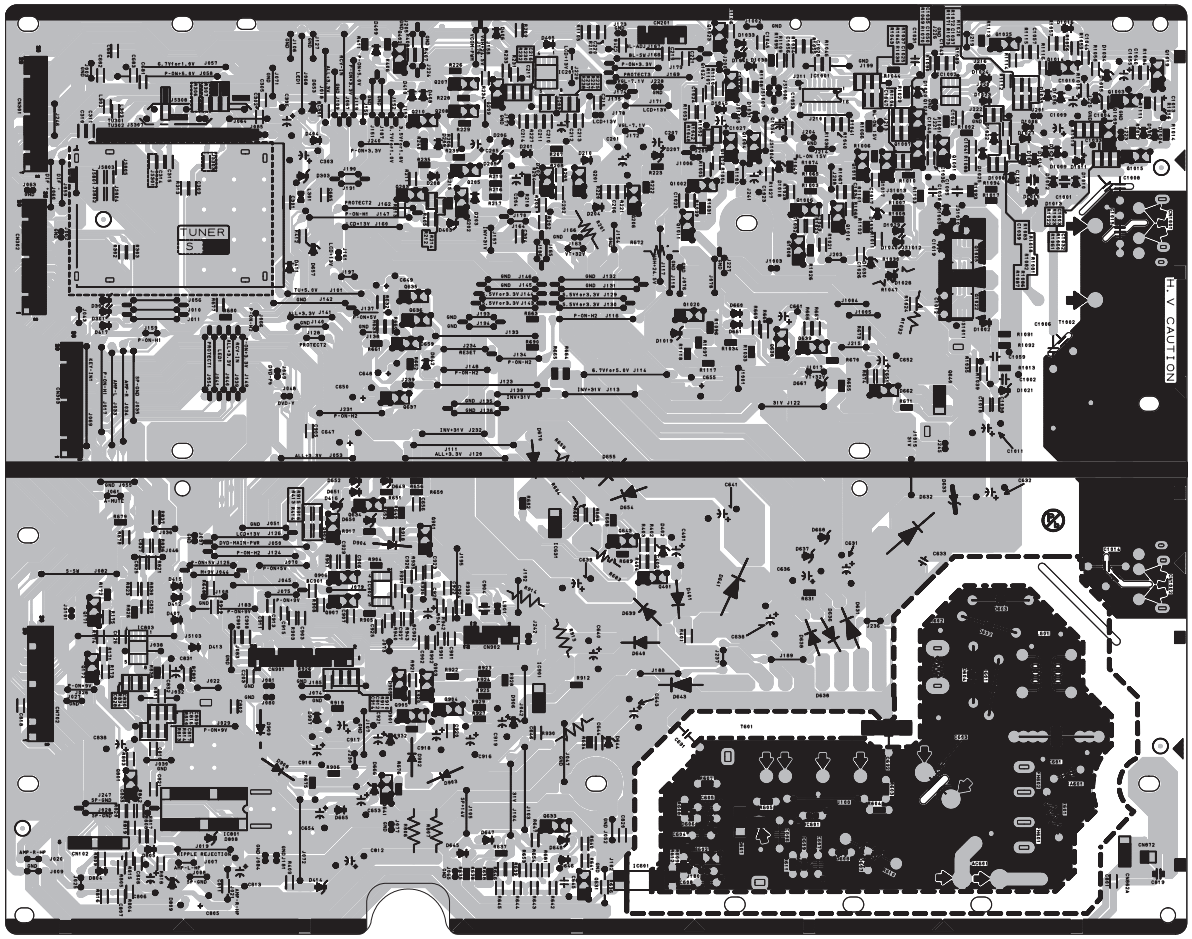


A94N5SCDV3_0430_3/3_0.0

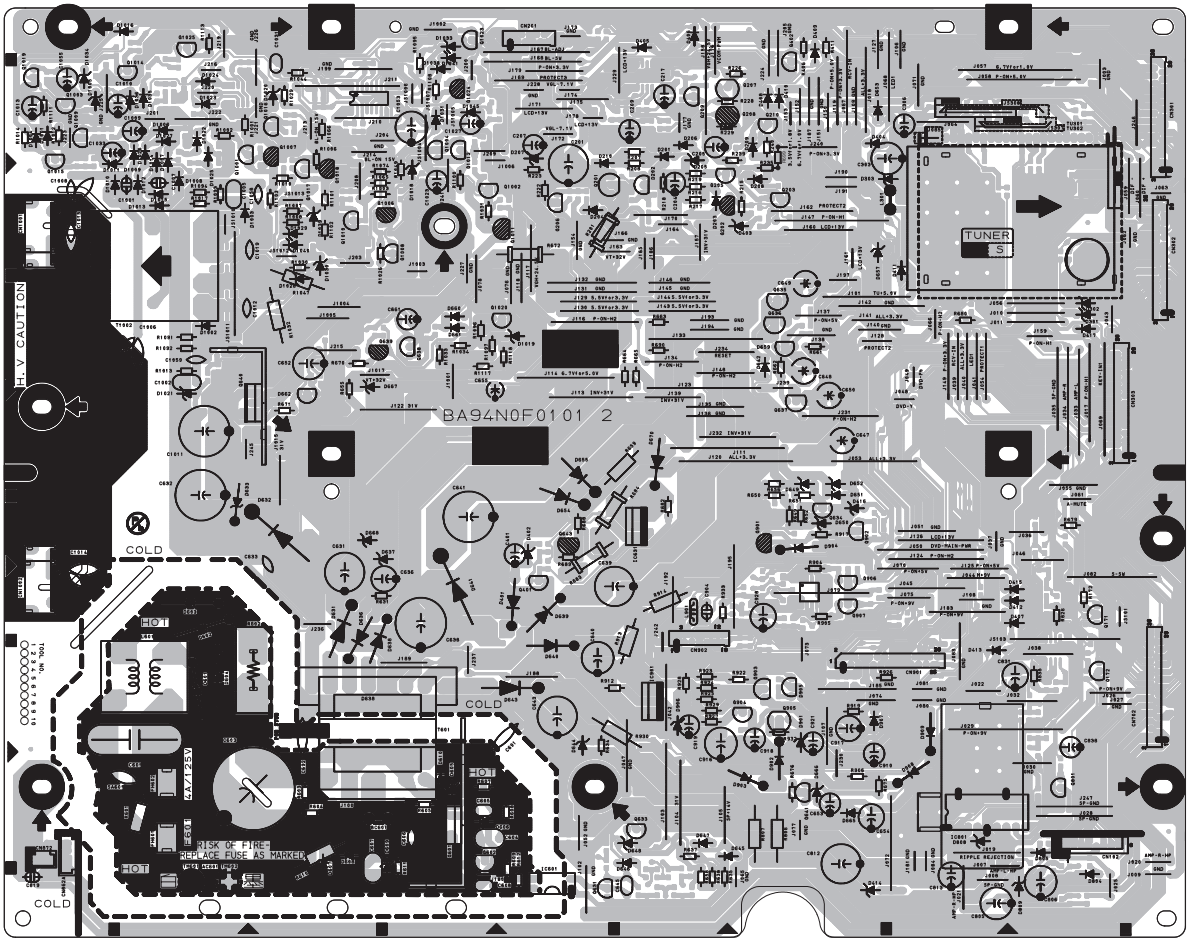
PATTERN DIAGRAMS

MAIN PWB PATTERN [SOLDER SIDE]

TOP

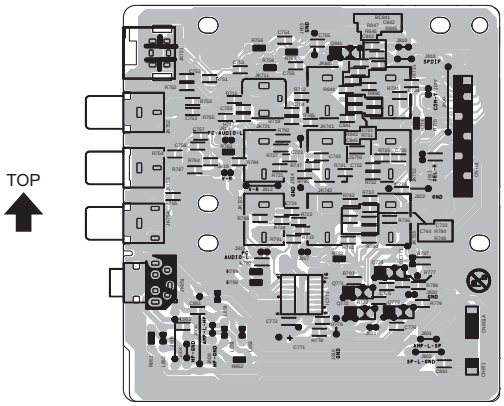


MAIN PWB PATTERN [PARTS SIDE]

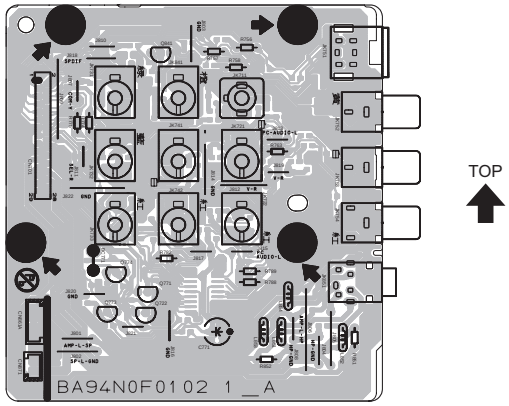


TOP

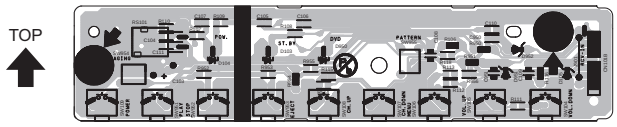
JACK PWB PATTERN [SOLDER SIDE]



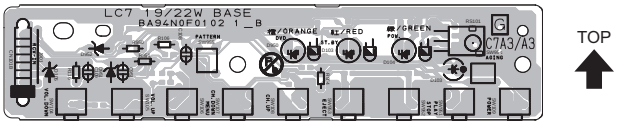
JACK PWB PATTERN [PARTS SIDE]



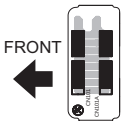
FUNCTION PWB PATTERN [SOLDER SIDE]



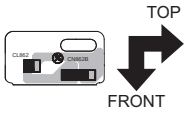
FUNCTION PWB PATTERN [PARTS SIDE]



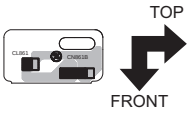
JUCTION-A PWB PATTERN [SOLDER SIDE]



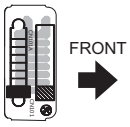
JUCTION-B PWB PATTERN [SOLDER SIDE]



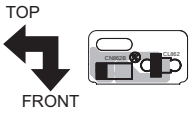
JUCTION-C PWB PATTERN [SOLDER SIDE]



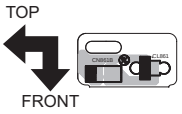
JUCTION-A PWB PATTERN [PARTS SIDE]



JUCTION-B PWB PATTERN [PARTS SIDE]



JUCTION-C PWB PATTERN [PARTS SIDE]

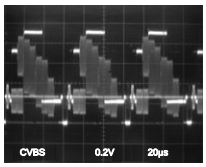


WAVEFORMS

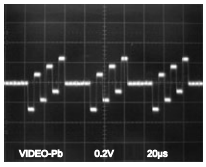
WF1 ~ WF7 = Waveforms to be observed at
Waveform check points.
(Shown in Schematic Diagram.)

Input: NTSC Color Bar Signal (with 1kHz Audio Signal)

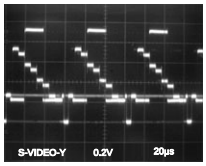
WF1 Pin 4 of CN302



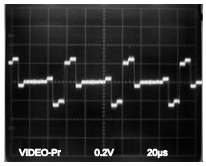
WF5 Pin 17 of CN302



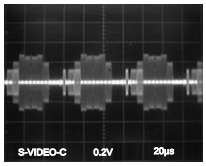
WF2 Pin 8 of CN302



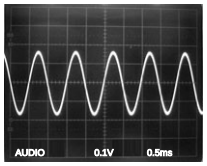
WF6 Pin 19 of CN302



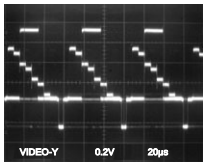
WF3 Pin 6 of CN302



WF7 Pin 13 of CN302



WF4 Pin 15 of CN302

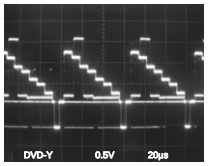


WAVEFORMS

WF8 ~ WF13 = Waveforms to be observed at
Waveform check points.
(Shown in Schematic Diagram.)

Input: NTSC Color Bar Signal (with 1kHz Audio Signal)
DVD Video (Play MODE)

WF8 Pin 9 of CN902



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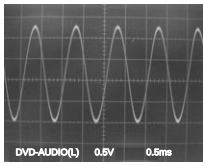
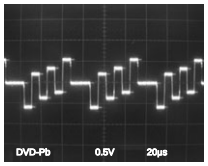


WF9 Pin 11 of CN902



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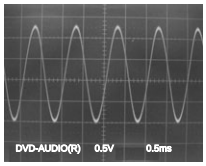
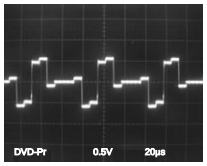
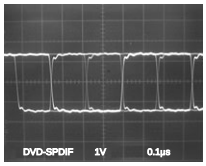


WF10 Pin 13 of CN902



WF13 Pin 1 of CN902



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